

# PSYCHOLOGICAL ABSTRACTS

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## CONTENTS

General.....	749-800
Sensation and Perception.....	801-883
Feeling and Emotion.....	884-892
Attention, Memory and Thought.....	893-926
Nervous System.....	927-953
Motor Phenomena and Action.....	954-1013
Plant and Animal Behavior.....	1014-1073
Evolution and Heredity.....	1074-1082
Special Mental Conditions.....	1083-1099
Nervous and Mental Disorders.....	1100-1170
Personality and Character.....	1171-1197
Social Functions of the Individual.....	1198-1268
Industrial and Personnel Problems.....	1269-1290
Educational Psychology.....	1291-1349
Biometry and Statistics.....	1350-1358
Mental Tests.....	1359-1377
Childhood and Adolescence.....	1378-1413

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# AUTHOR INDEX

- Abbot, E. S., 1100  
Abe, S., 801  
Abel, T. M., 802  
Achilles, P. S., 749  
Acqua, M., 884  
Adler, A., 1198  
Adrian, E. D., 927  
Aikens, H. A., 1100  
Alexander, H. G., 1014  
Alles, A., 750  
Altenburger, H., 954  
Anderson, F. N., 1074  
Anderson, V. V., 1291  
Angulo y Gonzalez, A. W., 1015  
[Anon.], 1292  
Aoki, S., 1016  
Arkhangelski, V. M., 955  
Armstrong, C. P., 1199  
Ashby, W. R., 1101  
Awaji, Y., 1171  
  
Baker, L., 1002  
Balasnikowa, N. J., 956  
Balletti, L., 1102  
Bals, A. G. A., 751  
Banisconi, F., 1269  
Barach, A. L., 993  
Baranova, F., 1200, 1201, 1178  
Barkley, K. L., 1100  
Barreto, A. P., 1359  
Bartley, S. H., 799  
Bates, W. D., 1350  
Bathurst, J. E., 1379  
Baumgarten, F., 1380  
Baur, L., 752  
Bayley, N., 1381  
Bayroff, A. G., 1017  
Bazett, H. C., 803, 804  
Bean, C. H., 1202  
Beasley, W. C., 1382  
Beck, L. F., 957, 1065  
Beck, S. J., 1172  
Beckman, R. O., 1270  
Bellelli, C., 958  
Beltran, J., 1271  
Belyavskaya, E. A., 998  
Bender, L., 1103  
Benedit, L., 753  
Benedit, F., 1075  
Benedetti, J. E., 1360  
Bergfeld, E., 754  
Bergman, R., 1203  
Bernabei, M., 1293  
Bernardi, R., 1104  
Berry, R. J. A., 928  
Bertholf, L. M., 1018  
Betscholtz, T., 937  
Bevis, W. M., 1105  
Bilancioni, G., 805  
Bills, A. G., 1204  
Bird, G. E., 1100, 1383  
Bishop, G. H., 929  
Bisov, S. A., 1272  
Blair, E. A., 930  
Blankfort, G., 926  
Blankstein, L., 1205  
Blum, H. F., 1019  
Blumer, H., 1206, 1207  
Boda, L., 755, 1173  
Bogen, D., 1208  
Bolton, J. S., 931  
Boodin, J. E., 1209  
Bose, G., 756  
Bottalo Plebani, L., 1294  
Bowen, J. L., 1361  
Bowen, R. E., 806  
Bray, C. W., 1070  
Bridgen, R. L., 1020  
Bridges, J. W., 1100  
Bridgman, R. P., 1384  
Brinley, F. J., 932  
Britt, S. H., 893  
  
Brolyer, C. R., 1362  
Bronfenbrenner, A. N., 1106  
Bronner, A. F., 1107  
Brown, F. W., 1108  
Brown, J. F., 1100  
Brown, S. II, 1109  
Brunello, B., 757  
Bucy, P. C., 933  
Bührig, H., 1210  
Bunch, M. E., 894  
Burns, C. L. C., 1198  
Burt, C., 758  
Busemann, A., 1295  
  
Cabot, R. C., 1211  
Caird, E., 759  
Calabresi, R., 807, 808  
Cameron, D. E., 1110  
Cameron, H. C., 1385  
Candee, B., 1363  
Carbognin, G., 959  
Carrelli, A., 1212  
Carlson, H. B., 1296  
Caronell, V. A., 960  
Carr, H. A., 760  
Carruccio, A., 809  
Carter, H. D., 895, 1297  
Casella, B., 961  
Cason, E. B., 885  
Cason, H., 885, 962  
Castellino, P., 934  
Caster, J. E., 1100  
Cavalcanti, P., 1213  
Chadwick, M., 1386  
Charters, W. W., 1214, 1298  
Chernishov, A., 1169  
Chou, S. K., 761  
Clark, G. H., 1387  
Clark, L. P., 1111  
Clause, H., 1388  
Coburn, C. A., 1100  
Cocchi, A., 963  
Coghill, G. E., 1021  
Cohen, L. H., 801  
Colajanni, G., 762  
Colucci, C., 1174  
Compton, R. K., 896  
Conrad, H. S., 1100, 1364  
Cooperman, N. R., 1094  
Coriat, I. H., 1100  
Corvin, M., 1100  
Coutinho, C., 1365  
Coveney, K., 1299  
Cowdery, K. M., 1300  
Crawford, B. H., 869  
Crawford, L. S., 1215  
Croon, C. W., 1357  
Crosland, H. R., 763  
Crutcher, H. B., 1112, 1113  
Cuff, B. C., 1302  
Culler, E. A., 811, 1027  
Cutler, T. H., 833  
Cutting, W. C., 978  
Czesowski, T., 812  
  
Dale, E., 1303  
Dandy, W. E., 935  
D'Antona, S., 1114  
Davidson, S. N., 1115  
Davidson, H. H., 1187  
Davis, P. W., 1304  
Dawson, W. M., 1076  
Dearborn, G. V., 1100  
Dearborn, W. F., 1216  
Deelig, E., 1253  
De Gluli, G., 764  
De Jong, H., 1116  
Del Greco, F., 1117  
Della Cioppa, D., 813  
De Medeiros, A., 814  
De Mennato, M., 1118  
  
Demoll, R., 964  
Dennis, W., 1022  
Denny-Brown, D., 936  
Derryberry, M., 1351  
De Sanctis, S., 1217  
Diamond, S., 1023  
Di Bella, L., 953  
Disner, D. R., 1389  
Dockeray, F. C., 886  
Dohman, G., 937  
Doil, E., 1305  
Donati, G., 1077  
Donovan, H. L., 1306  
Dorcus, R. M., 1024  
Dransfield, J. E., 1307  
Du Bois, P. H., 1119  
Dunlap, K., 1273  
Dunlap, S. C., 965  
Dusser de Barenne, J. G., 938  
Dwight, C. A. S., 815  
Dybowski, M., 1175  
Dysinger, W. S., 1390  
  
Earl, C. J. C., 1120  
Easley, H., 897  
Eckert, H., 1308  
Edson, N. W., 1391  
Elder, J. H., 1025, 1051  
Ellenor, M. V., 1392  
Elliot, M. H., 1026  
Ellis, W. J., 1121  
Elmqvist, R., 939  
Emmt, M., 1122  
English, H. B., 765  
Enke, W., 1176  
Erlanger, J., 930  
Eyre, M. B., 1123  
  
Farnsworth, P. R., 1177, 1218, 1309  
Fauville, A., 966  
Fearling, F., 967, 979  
Feller, F. M., 1274  
Feng, T. P., 940, 941  
Feofanov, M., 1310  
Ferguson, L. W., 1219  
Fernald, G. M., 1220  
Field, J., II, 978  
Finch, G., 811, 1027  
Finkel, J., 1290  
Finner, P. F., 1083  
Flugel, J. C., 766  
Foa, C., 1084  
Foley, J. P., Jr., 968, 1028  
Ford, C. A., 1178  
Forlano, G., 1370  
Frans, S. J., 898, 942  
Franssen, R., 1351  
Freeman, W., 1124  
Frei, J., 969  
Fresa, A., 1125  
Freud, S., 1085  
Friedemann, A., 1179  
Frisch, R., 1352  
Fromm, B., 816  
Frye, E. K., 1078  
Fulton, J. F., 1041  
Furfey, P. H., 1393  
  
Galcone, N., 970  
Garvey, C. R., 1126  
Gaskill, D. D., 817  
Gaskill, H. V., 887, 971, 972  
Gault, H., 818  
Gault, R. H., 1221  
Gayda, T., 973  
Gelaue, C., 819  
Geldard, F. A., 820, 821  
Gemelli, A., 1222  
Gengerelli, J. A., 899  
Gerard, R. W., 943  
Gergo, E., 767  
Gerundo, M., 1127  
  
Gibbons, H., 1230  
Gilarovski, V. A., 1128, 1129, 1130  
Gilhausen, H. C., 1029  
Gilmer, B. v. H., 1394  
Girden, E. S., 811, 1027  
Godlove, I. H., 853  
Golshovskaya, A., 1200, 1201, 1378  
Goldschmidt, J. S., 1086  
Goldzieher, K. R., 1180  
Goodfellow, L. D., 818, 822  
Gos, M., 1030  
Granit, R., 974  
Gray, E. W., 1131  
Gray, J., 1031  
Gray, W. L., 1032  
Greene, E. B., 975  
Greene, R. A., 1132  
Grippaudo, G., 823  
Groves, E. R., 1396  
Groves, G. H., 1396  
Gruenberg, R. C., 1397  
Gruenberg, S. M., 1397  
Gualco, S., 976  
Guidi, P., 1275, 1276  
Gullford, J. F., 824, 827  
Gullikaen, H., 900  
Gundlach, R. H., 1033, 1037  
  
Hackbusch, F., 1133  
Hall, C., 977  
Hall, V. E., 978  
Halstead, W. C., 979  
Halverson, H. M., 1398  
Hamilton, H. C., 825  
Hamilton, J. A., 1034  
Hammond, L. M., 768  
Harding, M. E., 1181  
Harlow, H. F., 1035, 1036  
Harris, D., 1182  
Harris, M. S., 1223  
Harris, W. T., 800  
Hartley, H. H., 1314  
Hathaway, S. R., 980  
Hauer, E., 1399  
Hauser, P. M., 1207  
Hausmann, M. F., 1183  
Hayes-Town, F. G., 826  
Heaton, K. L., 1311  
Heiser, F., 981  
Heller, T., 1134  
Helson, H., 824, 827  
Henderson, V. E., 982  
Hennies, E., 828  
Henry, L. K., 901  
Herington, G. B., 1033, 1037  
Herrick, C. J., 944, 945  
Hertel, H., 829  
Hetzler, H., 1400  
Hevner, K., 1224, 1358  
Heyer, G. R., 769  
Hilgard, E. R., 810, 830, 983  
Hill, A. V., 940, 941, 946, 984  
Hillman, L. F., 1312  
Hirose, K., 831  
Hoffman, P., 947  
Holaday, P. W., 1214  
Holmes, S. J., 1079  
Holtzclaw, B. C., 770  
Honsik, C. H., 832, 1038  
Horney, K., 1184  
Horowitz, E. L., 778  
Horst, P., 1353  
Horton, G. P., 1039  
Hotelling, H., 1354  
Howella, T. H., 833, 1080  
Hsiao, H. H., 902, 985, 1401  
Hughes, T. H., 1225  
Hull, C. L., 1040  
  
Humm, D. G., 1185  
Hunsicker, H. H., 1135  
Hunting, L. M., 1259  
Husband, R. W., 1277, 1278  
  
Ibukiya, T., 834  
Imman-Kane, C. V., 1136  
Irwin, O. C., 1402  
Ishijima, F., 986  
  
Jackson, T. A., 1055  
Jacobsen, C. F., 1041  
Jacobsen, O. I., 1226  
Jaensch, E. R., 1403  
Jaffa, A. S., 1364  
Jenness, A., 1087  
Jerald, A. T., 1404, 1405  
Jha, B. N., 1314  
Johnson, B., 1314  
Johnson, H. M., 771  
Jones, A. N., 1406  
Jones, E., 758  
Jones, E. S., 1315  
Jones, H. E., 895  
Jones, M. C., 1186  
Jones, W. C., 1306  
Jorgensen, C., 1366  
Judd, D. B., 835, 836, 837  
  
Kardos, L., 838  
Katcher, N., 962  
Katz, M. D., 825  
Kellogg, L. A., 1042  
Kellogg, W. N., 1042  
Kelly, G. A., 839  
Kempeny, L., 987  
Kinser, E. L., 1081  
Kinter, M., 1227  
Kirk, K. E., 1228  
Kirk, S. A., 1316  
Kirkman, F. B., 1043  
Kitson, H. D., 1279  
Klein, D. B., 1088  
Klein, R., 1407  
Kleinbub, M., 840  
Kleitman, N., 1094  
Koch, A. M., 1044  
Koch, H., 1280  
Koch, H. L., 1408  
Koerth, W., 1258  
Kogan, M. V., 1281  
Koh, A. G., 866  
Kolbanowski, V., 1317  
Kramer, F., 1229  
Krapivkin, A., 1089  
Krechevsky, I., 1034  
Kreiser, G., 1137  
Kremer, A., 841  
Krol, M. V., 1138  
Kroll, F. W., 954  
Kuchina, E., 1090  
Kulp, D. H., 1187  
Kung, H. C., 1318  
Kunkel, F., 1188  
Kurashiki, S., 903  
Kurashkevich, S. G., 904  
  
Lampis, E., 842  
Lange, H., 1409  
Langhorne, M. C., 988  
Langworthy, O. R., 1410  
Lanier, L. H., 772, 989  
Laricchia, F., 843  
Larson, J. A., 1230  
Lashley, K. S., 948  
Lau, E., 1411  
Laycock, S. R., 1412  
Lazarev, P. F., 773  
Lebedev, V. N., 1091  
Leedy, J. L., 989  
Leppmann, F., 1229, 1231  
Leuba, J. H., 1232  
Levi-Bianchini, M., 1139  
Lewis, D., 774

(Continued on Inside Back Cover)

# PSYCHOLOGICAL ABSTRACTS

VOL. VIII, No. 2

FEBRUARY, 1934

## GENERAL

749. Achilles, P. S. *Proceedings of the fourth spring meeting, New York branch, American Psychological Association, New Haven, Connecticut, April, 1933.* *Psychol. Bull.*, 1933, 30, 539-570.—J. F. Dashiell (North Carolina).
750. Alles, A. *Platonic love.* *Psychol. Bull.*, 1933, 30, 611-612.—Abstract.—J. F. Dashiell (North Carolina).
751. Balz, A. G. A. *Some historical steps toward parallelism.* *Psychol. Bull.*, 1933, 30, 613-614.—Abstract.—J. F. Dashiell (North Carolina).
752. Baur, L. *Psychologie.* (Psychology.) (3rd ed.) Breslau: Schles. Volkszeitg., 1932. Pp. 212.—R. R. Willoughby (Clark).
753. Benedek, L. Gróf Apponyi Albert. (Count Albert Apponyi.) *Magyar Psychol. Szemle*, 1933, 6, 3-13.—In memoriam.—A. Angyal (Worcester State Hospital).
754. Bergfeld, E. *Zur Psychologie des Parallelenaxioms.* (On the psychology of the parallel axiom.) *Zsch. f. Psychol.*, 1933, 130, 103-107.—In reply to O. Selz (*Zsch. f. Psychol.*, 1930, 114, 351-362) and to the mathematician D. Hilbert, it is contended that the supposed parallel axiom is capable of being reduced to other Euclidean axioms. The axioms of congruence are conventional postulates, the acceptance of which involves the necessary assumption of three dimensions in physical space. A failure to accept them, however, renders impossible a judgment as to whether physical space has dimensions at all, since in denying the axioms of congruence one loses the possibility of measuring angular relationships of straight lines, and thereby the possibility of defining the dimensions of space.—R. B. MacLeod (Swarthmore).
755. Boda, I. *A lélektani kutatás néhány vezérelvéről.* (Some leading principles of psychological research.) *Magyar Psychol. Szemle*, 1933, 6, 16-28.—It is the task of science to promote a very necessary change in our culture and to help to build up a new, more spiritual, more humane type of culture in the place of the old mechanistic one. Psychology will have a special and central role in the reform of culture. Psychology will do its task best by strictly psychological formulation, interpretation and evaluation of its problems. The autonomy of psychology is often violated in modern researches (e.g. characterological research). As a second basic principle Boda emphasizes the essential identity of psychic life in its different forms (in the child, in primitive man, in the different sexes, in abnormal people, etc.). Special emphasis must be laid upon the biological character of psychic life. The writer finally stresses the necessity of closer psychological investigation of the different cultural fields, such as politics, law, economics, etc.—A. Angyal (Worcester State Hospital).
756. Bose, G. *A new theory of mental life.* *Indian J. Psychol.*, 1933, 8, 37-157.—A detailed presentation of the theory of opposite wish which, the author contends, explains the peculiarities of mental life as seen in normal and abnormal persons in a more satisfactory and thorough manner than all other theories. In addition to satisfying all the canons of theory formulation, it has a wider range of applicability than any other psychological hypothesis and does not come into conflict with the tenets of physics, biology and philosophy. The theory departs from the usually accepted psychoanalytical theories at several important points. "In the first place it holds that wishes alone provide the motive form of our activities. Emotions and feelings, apart from their wish elements, are not to be held as incitors of actions. Perceptions are to be looked upon as latent wishes. It is neither pain nor pleasure but it is the principle of unity that guides our wish. All wishes are efforts at bringing about a psychological unification of the subject and the object. Pleasure is more primary than pain. Pleasure is expressed in love and other pleasant emotional states; pain in hate, anger, fear and similar reactions. All painful affects have their origin in repression. The same opposite wish is responsible for repression as well as for the appreciation of reality according as it is hindered or free."—H. W. Karn (Clark).
757. Brunello, B. *Il pensiero di Giuseppe Ferrari.* (The thought of Giuseppe Ferrari.) Milan: Soc. Ed. Dante Alighieri, 1933. Pp. 227.—A complete discussion of Ferrari as a philosopher, historian, and political scientist. Bibliography.—V. D'Agostino (Turin).
758. Burt, C., & others. *How the mind works.* London: Allen & Unwin, 1933. Pp. 336. 7/6.—In this book there are published the following series of broadcast talks: *How the Mind Works in the Adult: The Conscious Mind*, by Cyril Burt, *The Unconscious Mind*, by Ernest Jones; *How the Mind Works in the Child: Problems in the Development of the Child*, by Emanuel Miller, *Problems in the Treatment of the Child*, by William Moodie; *How the Mind Works in Society*, by Cyril Burt.—F. C. Bartlett (Cambridge, England).
759. Caird, E. *Il cartesianismo. Cartesio-Malebranche-Spinoza.* (Cartesianism. Descartes, Malebranche, Spinoza.) (Trans. by C. Bombelli.) Florence: La Nuova Italia. Pp. 97.—The book contains a bibliography on Cartesianism.—V. D'Agostino (Turin).
760. Carr, H. A. *The quest for constants.* *Psychol. Rev.*, 1933, 40, 514-532.—There are two opposed attitudes toward experimental problems in psy-

chology, one the "constancy" attitude, the other the "relativity" attitude. The former assumes the presence of constants which are the true values even though disturbed or hidden from view because of the variable distractive conditions which cannot be controlled. The latter attitude directs attention to the variations, and attempts to determine how and why the obtained value varies with the conditions of which it is a function. The difference is illustrated in two experimental problems: the span of apprehension, and the learning curve. In the former, the constancy attitude searches for the true number of objects that can be visually apprehended at one glance; while the relativity attitude recognizes that this is a function of the multifarious conditions of arrangement, etc., and seeks to find these conditions. In the learning curve problem, the constancy attitude postulates one true learning curve form (e.g. S-shaped), while the relativity attitude recognizes the possibility of an infinite number of learning curve forms dependent on the conditions employed.—*A. G. Bills* (Chicago).

761. Chou, S. K. A modification of Ranschburg's exposure apparatus. *J. Gen. Psychol.*, 1933, 9, 243-246.—The special feature of the apparatus described, the quadrant tachistoscope, is that it can be used for both vertical and horizontal exposure.—*H. Cason* (Wisconsin).

762. Colajanni, G. Nuovo apparecchio per l'esame del senso cromatico. (New apparatus for the examination of color vision.) *Racc. pubbl. Sci. Ist. Med.-leg. Aeronaut.*, 1932, 4, 19-24.—*R. Calabresi* (Rome).

763. Crosland, H. R. A modified gravity chronoscope. *J. Gen. Psychol.*, 1933, 9, 246-251.—Several improvements have been made in the apparatus described by the author in *J. Exper. Psychol.*, 1926, 9, 162-168.—*H. Cason* (Wisconsin).

764. De Giuli, G. Cartesio. Studi filosofici diretti da G. Gentile. (Descartes. Philosophical studies directed by G. Gentile.) Florence: Monnier, 1933. Pp. 269.—The author examines critically the most important questions concerning the life and philosophy of Descartes.—*V. D'Agostino* (Turin).

765. English, H. B. The ghostly tradition and the descriptive categories of psychology. *Psychol. Rev.*, 1933, 40, 498-513.—A way of escape is proposed from metaphysical dualism by adopting a point of view called "physical mentalism," which postulates that the events studied by psychologists take place in and are functions of anatomical structures of living organisms but differ from physiological processes by being these functions considered as integrated wholes. This permits interaction of mental and physiological without running contrary to current natural science hypotheses. Also, by stressing the functional and descriptive units which are appropriate to psychology (as against the analytical approach which reduces thinking to laryngeal movements) it avoids a second source of confusion; namely, units which have unity for the observer but not for the reacting organism. Such functional units are more likely to be found by beginning with the larger complexes of everyday life

and simplifying them than by attempting the synthesis from below.—*A. G. Bills* (Chicago).

766. Flugel, J. C. A hundred years of psychology. London: Duckworth, and New York: Macmillan, 1933. Pp. 384. 15/—This history begins with Herbart and ends with a survey of the present position in psychology. It divides the whole period under survey into three parts: 1833-1860, 1860-1900, and 1900-1933. Each successive section is a bit longer than its predecessor, as psychology has added more and more fields of investigation. All the various branches of psychology are discussed and described. A bibliography and chronological table are included.—*F. C. Bartlett* (Cambridge, England).

767. Gergö, E. A lélektani struktúrávizsgálatok módszeréhez. (The methods of psychological structural analysis.) *Magyar Psychol. Szemle*, 1933, 6, 29-41.—This is a criticism of some methodological defects of modern psychology. There is a need, first, of better defined and more adequate concepts; second, of a further development of analytical research, which in the opinion of the writer would lead to a new psychological associationism. It is an inconsequence common to most of the current views in psychology to admit on the one hand the necessity of the assumption of neural processes and on the other hand, both in terminology and in construction of hypotheses, to follow "specific" psychological (i.e. "speculative") conceptions. These conceptions make the postulate of a physiological (i.e. "final") explanation a priori impossible. Psychological analysis must give great attention to the separation of the sensory, the reproductive, and the conceptual elements of the experience. Finally, one should sharply distinguish between intellectual, emotional, and volitional processes.—*A. Angyal* (Worcester State Hospital).

768. Hammond, L. M. Leibniz' theory of knowledge. *Psychol. Bull.*, 1933, 30, 612.—Abstract.—*J. F. Dashiell* (North Carolina).

769. Heyer, G. R. The organism of the mind. London: Kegan Paul, 1933. Pp. xiii + 270.—Translations by E. and C. Paul of lectures delivered by the author and formerly published in German. The first part of the book deals with organ neuroses; the second part with methods of psychotherapy. The author's general standpoint is that of Jung.—*F. C. Bartlett* (Cambridge, England).

770. Holtzclaw, B. C. Ideas of value in ancient philosophy. *Psychol. Bull.*, 1933, 30, 619.—Abstract.—*J. F. Dashiell* (North Carolina).

771. Johnson, H. M. Do the axioms of epistemological realism imply that sensory content is public? *Psychol. Bull.*, 1933, 30, 621-622.—Abstract.—*J. F. Dashiell* (North Carolina).

772. Lanier, L. H. Proceedings of the twenty-eighth annual meeting of the Southern Society for Philosophy and Psychology, April 14 and 15, 1933. *Psychol. Bull.*, 1933, 30, 604-627.—Abstract.—*J. F. Dashiell* (North Carolina).

773. Lazarev, P. P. [A simple adaptometer for clinic use.] *Dokl. Akad. Nauk USSR*, 1932, A7,

161-164.—A simplified device for the investigation of eye-adaptation with peripheral vision. The technique of the investigation and the method of calculating the quantity of adaptation are described.—A. Yarmolenko (Leningrad).

774. Lewis, D. The tone integrator: apparatus for the study of timbre. *Psychol. Bull.*, 1933, 30, 584.—Abstract.—J. F. Dashiell (North Carolina).

775. Liddell, A. F. Instructed ignorance: the philosophy of Nicholas of Cusa. *Psychol. Bull.*, 1933, 30, 606-607.—Abstract.—J. F. Dashiell (North Carolina).

776. Louttit, C. M. The Dewey decimal system and psychology. *J. Gen. Psychol.*, 1933, 9, 234-238. The classification offered by the Dewey decimal scheme has never been adequate for psychology. It is doubtful whether the 13th edition of this scheme in 1932 was seen by a psychologist before it was published.—H. Cason (Wisconsin).

777. Malisoff, W. M. [Ed.] *Philosophy of science*. Philadelphia: Williams & Wilkins. Vol. 1, No. 1, January 1934. Pp. 400-500, per volume. \$5.00 (membership dues and journal).—*Philosophy of Science* is to be the chief external expression of the Philosophy of Science Association. The major portion of each issue (which is to be quarterly) will be devoted to contributions dealing with fundamental concepts and presuppositions viewed in the light of the positive results of science, with expressions of doubt of positive results of science, and with analyses and criticisms of logic and language. Each issue will contain a brief editorial section, a department for discussion, and a section for reviews and notes. Single issues may be devoted to symposia on such subjects as symmetry, error, the absolute, and continuity.—A. B. Hunter (Clark).

778. Marks E. S., & Horowitz, E. L. *Psychology work-book*. New York: Harper, 1933. Pp. 97. \$.50.—The work-book includes laboratory exercises, problems requiring detailed answers, and objective-type questions. The laboratory exercises are made as simple as possible, and no apparatus is used which is not indispensable.—H. Cason (Wisconsin).

779. McDonald, M. F. *Psychological foundations*. Brooklyn: Roosevelt Book Co., 1933. Pp. 378. \$3.00.—"Present day psychology is still in bondage to the physiological. . . . The present volume (aims) to restore consciousness to psychology and to show that man's behavior as a rational animal is inexplicable unless we consider the abiding element of his personality. Its viewpoint is extreme in the sense that it consistently maintains that psychology, considered without reference to consciousness and to soul, ceases to be psychology." Chapters deal with: the meaning of psychology; the physiological basis of psychology (16 pages); the process of consciousness (20 pages); the processes of sensation and perception, of imagery, of conception, of discrimination and comparison, and of association (in all 5 chapters, 115 pages); the processes of memory, judgment, and reasoning (3 chapters, 55 pages); reflexes and instincts;

habits; impulses, feelings, and emotions; and volitional processes (3 chapters, 70 pages); and 22 pages on personality. Each chapter is followed by a brief list of references and of questions for discussion. The volume ends with an appendix (*Approaches to Psychology*), and a bibliography of 64 references, the latest of which is dated 1929. The volume closes as follows: "The possession of (the long visioned type of personality) means that to environment we have perfected a superior adjustment of all that we owe to ourselves, our fellows and our Creator. Through the consciousness of so superior an adjustment we arise to a full concept of our existence as rational human beings."—O. L. Harvey (Research Dept., State Prison Colony, Norfolk, Mass.)

780. McGeoch, J. A. *Proceedings of the eighth annual meeting of the Midwestern Psychological Association, May 18, 19, 20, 1933*. *Psychol. Bull.*, 1933, 30, 571-584.—J. F. Dashiell (North Carolina).

781. Moore, T. V. *Gestalt psychology and scholastic philosophy*. I. *New Schol.*, 1933, 7, 298-325.—If we observe as unintegrated factors the lines used in drawing a cube, we get no sense of solidity or perspective such as we get when the cube is constructed from them. The Gestalt unification of sensory elements thus formed gives an element not found when the relations of the lines are deranged. In addition to this sensory resultant found in the whole, there is also a cognitive element dependent upon the practical meaning the cube has come to have through experience. Do these resultant elements depend merely upon physiological or chemical activities of the brain, or is there required the past experience of the perceiving subject? This problem is traced back to Hume, who faced in it a serious dilemma, since he could not see how distinct perceptions could be united into comprehensive wholes. The history of this problem is traced through the discussions of Müller, Meinong, Wertheimer, and Köhler, and will be projected into a later number.—J. P. Hylan (Stoneham, Mass.)

782. Mowrer, O. H. A device for numerically recording either rotary or linear movements of an oscillatory character. *J. Gen. Psychol.*, 1933, 9, 251-254.—The device has been used in studying the non-acoustic labyrinthine sensations of birds.—H. Cason (Wisconsin).

783. Peckham, R. H. A new precision stereoscope and objective technique for investigating problems in binocular vision. *Psychol. Bull.*, 1933, 30, 608.—Abstract.—J. F. Dashiell (North Carolina).

784. Petri, O. *Le realtà misurabili dell' universo*. (The measurable realities of the universe.) Bergamo: Il Pensiero, 1932. Pp. 88.—Through the progressive transformation of atoms the author sees a spiritualization of matter. As in his preceding volume, *The Universe and Life*, Turin, 1929, he studies the two qualities which orient human conduct and which open the route to psychology, philosophy, and morals, viz., wisdom and intelligence. There is a preface by Georges Joseph Ravasini.—V. D'Agostino (Turin).

785. Petrov, P. M. [A complex kinematoscope.] *Sovet. psikhotekh.*, 1932, 6, 388-428.—This apparatus can measure the exact reproduction of the movements, the coordination of the simultaneous movements of both hands, the amplitude of movements, their speed, strength and exactness, the regulation of motor impulses, the orientation in space, etc. The kinematoscope includes the lineal kinematometer, coordinometer, impulsometer, tachistograph and a device for visual judgment.—A. Yarmolenko (Leningrad).
786. Pillsbury, W. B. The units of experience—meaning or Gestalt. *Psychol. Rev.*, 1933, 40, 481-497.—Since Brentano emphasized the distinction between mental content as such and the fact of representation, many attempts have been made to explain how the two processes are related. Ehrenfels, in 1890, insisted that the real essence of any perception was to be found in the Gestalt, as distinct from the elements. Later, the school of Gestaltists went further, asserting that the Gestalt is all there is in the process. A Gestalt is described as not definable in terms of its parts, or of the conditions under which it occurs; it is immediately known and not capable of further analysis; it does not develop from, and is not modified by experience. Against this wholly unsatisfactory unit, the author suggests a unit which is interpretable in terms of the accompanying situation; and in terms of the growth of experience which produces the "type." The latter unit has the advantage of being analyzable, of explaining the succession of mental events, and the temporal continuity and organization found in them.—A. G. Bills (Chicago).
787. Sanborn, H. C. A philosophy of experiment. *Psychol. Bull.*, 1933, 30, 622-623.—Abstract.—J. F. Dashiell (North Carolina).
788. Seashore, R. H. Proceedings of the Western Psychological Association meetings, University of Southern California, Los Angeles, June 16-17, 1933. *Psychol. Bull.*, 1933, 30, 585-603.—J. F. Dashiell (North Carolina).
789. Seashore, R. H. An outline for the planning, reporting and criticism of experiments. *Psychol. Bull.*, 1933, 30, 587.—Abstract.—J. F. Dashiell (North Carolina).
790. Tolman, E. C. Gestalt and sign-gestalt. *Psychol. Rev.*, 1933, 40, 391-411.—In clarifying the difference between Gestalten and sign-gestalts, the author points out that sign-gestalts are the third term in a progression from the "sensationalism" of structuralism, through the "perceptualism" of Gestalt psychology, to the "propositionalism" or "means-end-relationships" of the sign-gestalt doctrine. Certain new concepts, such as "discriminanda" and "discriminanda-expectations," "manipulanda and manipulanda-expectations," "means-end-relations" and "means-end-expectations," "position-relations and position-expectations" are introduced and defined and analogies are pointed out between them and such orthodox distinctions as that between primary and secondary qualities, etc. "To sum up, according to sign-gestalt psychology, environmental objects offer not only discriminanda and manipulanda, but also means-end-relations, which latter may be subdivided further into 'position-relations' radiating towards a given object and 'means-relations' radiating from that object."—A. G. Bills (Chicago).
791. [Various]. Dr. Koreshige Masuda, his life and work. *Jap. J. Psychol.*, 1933, 8, 791-826.—R. R. Willoughby (Clark).
792. Varnum, W. A high-speed chronograph. *Psychol. Bull.*, 1933, 30, 593-594.—Abstract.—J. F. Dashiell (North Carolina).
793. Vlach, M. *Lehrbuch der Psychologie*. (Textbook of psychology.) Leipzig: Braumüller, Univ. Verlbh., 1933. Pp. 171. Hlw. 3.50.—R. R. Willoughby (Clark).
794. Walton, A. Some minor improvements in eye-movement camera technique. *Psychol. Bull.*, 1933, 30, 593.—Abstract.—J. F. Dashiell (North Carolina).
795. Wandeler, J. *Die Individualpsychologie Alfred Adlers in ihrer Beziehung zur Philosophie des Als Ob Hans Vaihingers*. (The individual psychology of Alfred Adler in its relation to the "as if" philosophy of Hans Vaihinger.) Lachen: Buchdruck "Gutenberg," 1932. Pp. 103.—R. R. Willoughby (Clark).
796. Warren, W. P. Frames of reference in philosophy. *Psychol. Bull.*, 1933, 30, 614-615.—Abstract.—J. F. Dashiell (North Carolina).
797. Weitzenhoffer, T. A qualitative psychology. *Psychol. Bull.*, 1933, 30, 588.—Abstract.—J. F. Dashiell (North Carolina).
798. Werner, H. *Einführung in die Entwicklungspsychologie*. (An introduction to genetic psychology.) Leipzig: Barth, 1933. Pp. viii + 432. RM. 17.40.—The object of this book is to summarize theoretically the principal facts of a general and comparative genetic psychology and to illustrate these by means of extensive material taken from the sphere of the psychology of the child, of animals and primitive man, and normal and abnormal experimental psychology. Since the first edition appeared, the genetic point of view has become more and more one of the main aspects of psychological research. It was therefore necessary to put into the new edition a great deal of new material and new specific problems. To commence with, there is a description of the nature of genetic psychology and its methods. Evolution is described as progressive differentiation and centralization. A characteristic of all primitive phenomena and functions is their diffuseness and complexity. From this it can be understood that primitive sensations are constructed of undifferentiated acts of motion, feeling and perception combined; the primitive visible world consists of "things-of-action," is dynamic and physiognomic. The perception of space and time is here more emotional than objective, more practical and concrete than abstract. The actions are originally also complex; they are bound up with the vital and concrete situation, and develop little by little toward an increasing "mediateness" (increasing motivation and planning). Primitive actions are also diffuse,

viz., of unarticulated totality. Primitive thinking is likewise complex, being indissolubly interwoven with perceiving, feeling and movement. For instance, primitive abstraction is concrete; for it manifests itself not in completely separating the qualities from the things, but in specially stressing these qualities in the concrete things. Moreover, the development of psychic life toward a progressive differentiation can be shown by the evolution of symbolizing, of naming, and of forming ideas and thoughts. For example, the ideas of primitive man, of the child, and of certain of the mentally diseased are complex, idea and image being combined ("notion-pictures"). They are diffuse in not designating single things, but more extensive totalities ("ideogrammatical" names). The magic conduct of primitive man and of the child is also rooted in these peculiarities. Two important chapters about the construction of primitive reality and the evolution of primitive personality complete the book. A bibliography of 20 pages gives a list of works concerning genetic psychology.—*H. Werner* (Hamburg).

799. Wheeler, R. H., Perkins, F. T., & Bartley, S. H. Errors in the critiques of Gestalt psychology. IV. Inconsistencies in Woodworth, Spearman and McDougall. *Psychol. Rev.*, 1933, 40, 412-433.—The systems founded by these three authors all face the problem of unity or organization, Woodworth's from the standpoint of biological functionalism, Spearman's by emphasizing the creative aspect or noogenesis, and McDougall's by stressing the purposive aspect of mental life. But all resort to mechanistic or mechanovitalistic theories and the principle of associational synthesis, which is the direct antithesis of organismic psychology. Woodworth seeks a middle-of-the-road position, but this is impossible, because the mechanistic and organismic systems are both all-or-none systems.—*A. G. Bills* (Chicago).

800. Wooten, B. A., & Harris, W. T. A simple string electroscope. *Science*, 1933, 78, 630-631.—A description of a simple string electroscope and its uses as a voltmeter and an oscillograph. Figures showing the set-up and sensitivity when used as a voltmeter are included.—*P. Seckler* (Radcliffe).

[See also abstracts 971, 972, 974, 1058, 1088, 1288, 1345.]

# SENSATION AND PERCEPTION

801. Abe, S. Neue Untersuchung über die absoluten Eindrücke im Gebiete der wahrnehmbaren Zeit. I. (New investigation on absolute impressions in the field of perceptible time. I, II.) *Jap. J. Psychol.*, 1933, 8, 35-73; 243-281.—With German abstract.—*R. R. Willoughby* (Clark).

802. Abel, T. M. The influence of visual and auditory patterns on tactual recognition. *Psychol. Bull.*, 1933, 30, 543-544.—Abstract.—*J. F. Dashiell* (North Carolina).

803. Bazett, H. C., McGlone, B., Williams, R. G., & Lufkin, H. M. Studies in sensation. I. Depth, distribution and probable identification in the prepuce

of sensory end-organs concerned in sensations of temperature and touch; thermometric conductivity. *Arch. Neur. & Psychiat.*, 1932, 27, 489-517.—(*Biol. Abst.* VII: 18391).

804. Bazett, H. C., & McGlone, B. Studies in sensation. II. The mode of stimulation of cutaneous sensations of cold and warmth. *Arch. Neur. & Psychiat.*, 1932, 27, 1031-1069.—(*Biol. Abst.* VII: 18391).

805. Bilancioni, G. Sordità congenita. (Congenital deafness.) *Pediat. prat.*, 1932, No. 10, 332-333.—The author examines several forms of congenital deafness which concern the newborn.—*R. Calabresi* (Rome).

806. Bowen, R. E. The cupula of the ear. *Proc. Nat. Acad. Sci.*, 1931, 17, 413-415.—*R. R. Willoughby* (Clark).

807. Calabresi, R. Invertibilità della illusione di Poggendorf nella percezione tattilo-cinetica. (The invertibility of the Poggendorf illusion in tactile-kinetic perception.) *Soc. ital. prog. sci., XXI riunione sunt. delle comm. sci.*—A simple experimental arrangement was used in which the subject, in certain cases, was to judge the position of two segments of an oblique line which for a short distance was interrupted by two parallel lines. In other cases the subject himself arranged the two segments. The results show that with acute angles there was a regular inversion of the illusion, i.e., an observable tendency to correct the illusion by widening the separation point of the two segments on the parallel lines. With obtuse angles there were cases of positive and inverted illusions and cases where no illusion was present.—*F. Banisconi* (Rome).

808. Calabresi, R. Osservazioni sulla valutazione tattilo-cinetica degli angoli. (Observations on the tactile-kinetic evaluation of angles.) *Soc. ital. prog. sci., XXI riunione sunt. delle comm. sci.*—In the first series of experiments the subject was presented angles of 80°, 85°, 90°, 95°, and 100° in various positions. With vision excluded the subject touched successively the two sides of the angle with the right index finger. Under these conditions there was a predominating tendency toward under-estimation. In a second series of experiments very acute (30°-35°) and very obtuse (150°-160°) angles were used, and the subject was instructed to bring these angles to one of 90°. Here it was observed that the always predominant tendency to under-estimate was united with a tendency to over-estimate the movements required in the adjustment to 90°. These results are placed in relation to other similar results secured with the bimanual estimation of angles.—*F. Banisconi* (Rome).

809. Carruccio, A. Importanza dell' esame del senso cromatico negli aviatori. Critica dei metodi di esame. (The importance of the examination of the color sense in aviators. Critique of the methods of examination.) *Racc. pubbl. Sci. Ist. Med.-leg. Aeronaut.*, 1932, 4, 20-35.—All the personnel in aviation must possess perfectly normal color sensitivity. The examination must be made with two

methods, one fundamental and one a control. The Holmgren wool test is to be preferred for the fundamental test, and for the control test one may use pseudochromatic tables. The anomaloscope of Neaple reveals color defects.—*R. Calabresi* (Rome).

810. Cohen, L. H., Hilgard, E. R., & Wendt, G. R. Sensitivity to light in a case of hysterical blindness studied by reinforcement-inhibition and conditioning methods. *Yale J. Biol. & Med.*, 1933, 6, 61-67.—The following methods and results are reported in this study of a case of hysterical blindness: (1) reinforcement and inhibition of eyelid reflexes to sound by light presented in the blind and seeing areas showed reinforcement-inhibition effects which were practically equal, whether the light was presented in the blind or seeing area; (2) conditioned eyelid reactions to light in the blind area were obtained, even though the subject did not report seeing the light; and (3) conditioned verbal responses to a light in the blind area were also obtained.—*S. H. Newman* (Clark).

811. Culler, E. A., Finch, G., & Girden, E. S. Function of the round window. *Science*, 1933, 78, 269-270.—The authors have examined the hearing (response to sounds) of dogs who have had a plug "of soft gum enveloped in gauze" brought into snug contact with the round-window membrane. In five cases, taken after perfecting the procedure, the gain in sensitivity over previously established response limens was 10 db., and the S.D. was .84. The stimulus tone had a frequency of 1000 dv. When the electrical pick-up from the auditory nerve (Wever-Bray effect) was led off into ear-phones and the response to a whistle of 1000 cycles reduced by attenuation to the point of inaudibility, a mean gain was found with "plug in" over "plug out" of 4.4 db. (S.D. = 1.46) with the first half of the cases and of 9.9 db. (S.D. = 2.52) with the second half of the cases.—*E. H. Kemp* (Clark).

812. Czeżowski, T. Spostrzeżenia i przypomnienia. (Concerning perception and memory.) *Kwart. Psychol.*, 1933, 4, 237-244.—An attempt to give a descriptive analysis of perception and memory in keeping with the theoretical considerations of Brentano, Hoeffler, and Witwiski, with particular emphasis on *Gestaltqualität*.—*T. M. Abel* (Sarah Lawrence).

813. Della Cioppa, D. Diminuzione di udito e vegetazione adenoida. (Diminution of hearing and adenoid tissue.) *Boll. mal. orecch., naso, gola*, 1932, No. 10, 315-322.—In 50 infants with adenoids, 80% had reduced hearing, particularly for low tones.—*R. Calabresi* (Rome).

814. De Medeiros, A. Ilusão do já visto. (Illusion of the déjà vu.) *Arg. assist. a psicopat. de Pernambuco*, 1933, 3, 27-33.—*R. M. Bellows* (Ohio State).

815. Dwight, C. A. S. Pickwickian senses. *Psychol. Bull.*, 1933, 30, 611.—Abstract.—*J. F. Dashiell* (North Carolina).

816. Fromm, B., Nylén, O., & Zottermann, Y. Electric stimulation of the cochlea. *J. Physiol.*, 1933, 80, 3P-4P.—Attempts to obtain the Wever and Bray effect in man, using patients where the round window

is accessible through large perforations in the drum, were unsuccessful. A rapidly fluctuating potential in the neighborhood of the round window produced definite sensations of sound in 5 out of 18 patients. Notes from 200 to 3500 were perceived by one subject. It is suggested that since the effect is brought out only when the electrode is placed near the round window, it is probably due to a direct stimulation of the cochlear apparatus.—*M. A. Rubin* (Clark).

817. Gaskill, D. D. The effect of subliminal stimulation upon closure in perception. *Psychol. Bull.*, 1933, 30, 592-593.—Abstract.—*J. F. Dashiell* (North Carolina).

818. Gault, R. H., & Goodfellow, L. D. Eliminating hearing in experiments on tactual reception of speech. *J. Gen. Psychol.*, 1933, 9, 223-228.—In connection with the tactual interpretation of speech and music, the problem has come up of eliminating hearing completely. The data which are now presented show that this has been satisfactorily accomplished.—*H. Cason* (Wisconsin).

819. Gelauze, C. Disturbi della sensibilità dolorifica e tattile della cute del cranio nelle malattie auricolari. (Disorders of tactile and pain sensitivity of the scalp in auricular diseases.) *Valsalva*, 1932, No. 8, 611-636.—*R. Calabresi* (Rome).

820. Geldard, F. A. The description of a case of total color blindness. *J. Opt. Soc. Amer.*, 1933, 23, 256-260.—A graduate student, none of whose family suffered from any color defect, was found to be totally color blind, a fact demonstrated by his responses to all the usual tests for color blindness. Myopia, amblyopia, slight strabismus, nystagmus, and photophobia were also present. Ophthalmoscopic examination showed the usual oval reflex of the macula to be absent; the disks appeared somewhat pale in the temporal two-thirds; some pigment patches were seen in the right eye. No central scotoma could be demonstrated, but a white test-object was seen as dimmer when brought into the line of regard. The visibility curve nearly coincided with the scotopic visibility curve of Hecht and Williams. The author concludes that in this case "vision is mediated exclusively by the rods; the cones are completely missing from the picture."—*M. R. Stoll* (Johns Hopkins).

821. Geldard, F. A. The description of a case of total color blindness. *Psychol. Bull.*, 1933, 30, 609.—Abstract.—*J. F. Dashiell* (North Carolina).

822. Goodfellow, L. D. The sensitivity of the finger-tip to vibrations at various frequency levels. *J. Franklin Inst.*, 1933, 216, 387-392.—In the many attempts which have been made to determine the frequency limits of perceptible mechanical vibrations experimenters have neglected to increase the activating power as the higher frequencies are reached, thus making the amplitude of the vibrations exceedingly small. Under this condition the upper limits "as set by these experimenters are not true thresholds—being functions of the intensity of stimulation rather than the actual upper frequency thresholds or limits of sensitivity." Based on previous work in Gault's

laboratory, where it was found that observers could feel vibrations as high as 8192 d.v./sec. provided additional amplification were added, the author assumes "that within limits, the apparent upper threshold is a function of the intensity of stimulation." Intensity thresholds were determined for 20 observers at frequencies ranging from 64 to 8192 d.v./sec. From the data secured "it is possible to compute roughly the relative sensitivity of touch and hearing" and from such a relationship "it is possible to make an estimate of the sensitivity of the finger-tip on the basis of Fletcher's work on the sensitivity of the ear." On the basis of the results of the present experiment, which show the differences in the sensitivity of touch and hearing to vary with the frequency, differential amplification, wherein the gain of the amplifier is the reverse of the curve for the sensitivity of touch in connection with the Gault teletactor, the author holds, would permit "the deaf observer to perceive through touch all pitches in the same intensity relation as the normal person does through hearing."—A. L. Wells (Pennsylvania).

823. Grippando, G. *Sull' orecchio musicale nel canto in soggetti adenoidei non operati da bambini.* (On the musical ear in song with adenoid subjects not operated on in infancy.) *Valsalva*, 1932, No. 9, 727-734.—With the subjects studied the defects are attributed to alterations in the resonance chambers due to adenoid tissue.—R. Calabresi (Rome).

824. Guilford, J. P., & Helson, H. *Pigmentation and visual sensitivity.* *Psychol. Bull.*, 1933, 30, 574-575.—Abstract.—J. F. Dashiell (North Carolina).

825. Hamilton, H. C., & Katz, M. D. *The effect of brightness upon discrimination of length.* *Psychol. Bull.*, 1933, 30, 546.—Abstract.—J. F. Dashiell (North Carolina).

826. Hayes-Towns, F. G. *Suggestion in refraction.* *Australas. J. Optom.*, 1932, 15, 24-32.—Optometrists must sometimes resort to psychotherapeutic measures in order to relieve the symptoms of certain neurotic individuals. As a guide to the possible application of these methods, Hayes-Towns finds that a lack of consistency in symptoms, such as their appearance only under conditions which are repugnant and their failure to appear in more enjoyable conditions, may indicate the true cause of the trouble. For example, the patient may experience severe headaches during work periods, the discomfort disappearing in the evening or during week-ends.—A. B. Hunter (Clark).

827. Helson, H., & Guilford, J. P. *The relation of visual sensitivity to the amount of retinal pigmentation.* *J. Gen. Psychol.*, 1933, 9, 58-76.—The authors investigated the relation between sensitivity and retinal (and iris) pigmentation, and made measurements in the peripheral retina and in the fovea. In the fovea it required nearly twice as much light to attain the minimum visible for the average blue-eyed S as for the average dark-eyed S, and it appeared that foveal sensitivity to light was positively correlated with the amount of retinal pigmentation. This con-

clusion was also borne out by tests on negroes. The negroes were superior to the whites from the center to the periphery, but this difference grew smaller as the periphery was approached. The suggestion is made that a common genetic factor may be responsible for both amount of pigment and sensitivity in the peripheral retina.—H. Cason (Wisconsin).

828. Hennies, E. *Über die Beeinflussung der Mischungsgleichungen durch Umstimmung der Geschmackswerkzeuge.* (The influence of adaptation of the organ of taste upon compound equations.) *Zsch. f. Sinnesphysiol.*, 1933, 64, 115-125.—The validity of the compound equations for certain inorganic salts is reduced by adaptation of the taste organ. The influence lasts for a short time (about two minutes) and is effective upon the quantitative, though not the qualitative, aspect of the equations. No influence upon the bitter and sweet components of the salts used was discovered; the effect was confined to the salt and sour components. Individual differences are noted. The relation of the results to the problem of the primary taste qualities is discussed.—F. W. Irwin (Pennsylvania).

829. Hertel, H. *Über den Geschmack einiger organischer Salze.* (The taste of some organic salts.) *Zsch. f. Sinnesphysiol.*, 1933, 64, 152-160.—By the method of Skramlik, compound equations were determined with 3 observers for 12 organic salts. Of these equations 27 involved 3 taste components and 9 involved 4 taste components. The equations were constant for the individual observers, but differed considerably from one observer to another. Only common salt, of all the salts so far tested, has had the pure salty taste.—F. W. Irwin (Pennsylvania).

830. Hilgard, E. R., & Wendt, G. R. *The problem of reflex sensitivity to light studied in a case of hemianopsia.* *Yale J. Biol. & Med.*, 1933, 5, 373-385.—"The lid reflex to light was studied in a patient with right homonymous hemianopsia after surgical resection of the left occipital lobe. Lights of 4.8 and 1.0 apparent foot-candles presented in the blind field resulted in no reflex response as measured by their reinforcing or inhibiting effect on a following lid reflex to sound. Lights of 1000 apparent foot-candles elicited reflexes when presented in the blind field as measured by this method, but also resulted in perception. The sources of error are discussed, and a method suggested for controlling them."—S. H. Newman (Clark).

831. Hirose, K. *Study of motional phenomena in auditory region.* *Jap. J. Psychol.*, 1933, 8, 745-791.—R. R. Willoughby (Clark).

832. Honzik, C. H. *A note on Hartmann's experiments showing the effect on visual acuity of simultaneous stimulation of other sense organs.* *J. Exper. Psychol.*, 1933, 16, 875-878.—Hartmann has recently presented evidence which shows an increase in visual acuity of the right eye with simultaneous auxiliary stimulation of the left eye, and also with auditory, olfactory, tactual and pain stimulations. These phenomena were explained in terms of some sort of cortical diffusion through the medium of association

fibers. The present author contends that consideration of the neuro-anatomy of vision and certain well-established facts in physiological optics leads to the conclusion that the increase in visual acuity by auxiliary stimuli may be due to simple reflex action and not to cortical diffusion. Hartmann used an artificial pupil before the right eye in order to maintain pupillary influences constant. The author points out that an artificial pupil does not maintain pupillary influences constant if the other eye is stimulated by light. Furthermore, other stimuli are able to bring about pupillary changes. For example, stroking or pinching of the skin of the neck calls forth a dilation of the pupil. "It is therefore not only possible, but quite probable that the auxiliary stimuli used in the experiment brought about some changes in the size of the pupil of the right eye."—H. W. Karn (Clark).

833. Howells, T. H., & Cutler, T. H. The experimental control of visual factors. *J. Exper. Psychol.*, 1933, 16, 865-872.—This study deals with the experimental control of the following visual factors: (1) size of retinal image, (2) distinctness of the image, (3) adjustment of the focus of the crystalline lens. The authors contend that up to the present time there has been no actual separation of these three visual factors. The general principle involved in the proposed technique is that lens adjustment shall be independently controlled through auxiliary lenses placed in front of the eye. If it is desired, for instance, to vary the size or the retinal image while holding lens adjustment and distinctness constant, the preliminary procedure would be to move the stimulus object nearer to or farther away from the eye, which would make the retinal image correspondingly larger or smaller. In an uncontrolled situation these changes would entail corresponding changes in the lens adjustment if the eye is focused on the object, so that maximum distinctness is obtained. The proposed technique would avoid this change in lens adjustment by introducing in front of the eye an auxiliary lens of such value as to produce with the same adjustment maximum distinctness of the image, although with the object at the changed distance from the eye.—H. W. Karn (Clark).

834. Ibukiyama, T. Experimentelle Untersuchung über Sehgrößenkonstanz. (Experimental investigation on visual size constancy.) *Jap. J. Psychol.*, 1933, 8, 21-35.—With German abstract.—R. R. Willoughby (Clark).

835. Judd, D. B. Sensibility to color-temperature change as a function of temperature. *J. Opt. Soc. Amer.*, 1933, 23, 7-14.—Determinations at the same brightness by six normal observers have been made of the color-temperature difference corresponding to a chromaticity difference just doubtfully perceptible over the range of 1800 to 11,000° K. It has been found that this temperature difference corresponds closely to a constant difference in the spectral centroid of light (Priest's empirical relation); it is also closely proportional to the square of the color temperature (Davis' representation of Priest's empirical relation); furthermore, it corresponds with good approximation

to a constant difference in the "red" trilinear coordinate (Judd's empirical relation). These experimental results have therefore approximately checked three empirical relations previously derived from less complete data. Priest's spectral-centroid relation and Davis' representation of it both agree so closely with the experimental data that the discrepancies are not known to be real, but Judd's empirical relation yields discrepancies about twice as large as the experimental uncertainty. The verification of Priest's spectral-centroid relation confirms the tentative conclusion by Davis and Gibson that between 2000 and 3000° K a given color-temperature difference causes for the normal observer nearly the same size chromaticity difference regardless of whether the radiators be viewed directly or through a blue filter not more highly selective than a "daylight filter." This result has a bearing on the phenomenon of "color constancy"; that is, it helps to explain why the colors of objects are approximately constant for illuminants differing as widely as incandescent lamplight and natural daylight.—D. B. Judd (Bureau of Standards).

836. Judd, D. B. Saturation scale for yellow colors. *J. Opt. Soc. Amer.*, 1933, 23, 35-40.—The relationship between colorimetric purity of the stimulus and saturation of the color evoked under specified observing conditions has been determined for yellow colors by using the yellow series of Lovibond glasses (dominant wave-length about 575 mμ). Two observers have selected glasses from this series requisite to produce a scale progressing by equal steps from white to yellow. The step size varied from something approaching the least perceptible in one determination to about four times that size in another; it was found that this variation produced no significant change in the shape of the curve connecting purity and saturation. An increase in step size by an additional factor of three was tested for five observers. It was found chiefly to introduce greater individual difference; the average for all observers was not significantly changed. It is concluded that the integral of the sensibility to purity change from zero purity may safely be taken as the saturation of the yellow color evoked under the present observing conditions. The saturation-purity curve resulting from these determinations is compared with that from previous experimental data and with those from two empirical relations. In order to discover whether the discrepancies revealed by this comparison are ascribable to individual difference, groups of glasses representing each of four curves compared were selected and judgments obtained from eight observers, with the result that the experimental scale was corroborated. The individual differences shown among these eight observers were too slight to account for the discrepancy. It is concluded that an empirical relation which was previously found fairly well justified by data on other types (wave length, color temperature) of chromaticity sensibility, though not perfect, yields a saturation scale for yellow which is close to the true one.—D. B. Judd (Bureau of Standards).

837. Judd, D. B. The 1931 I. C. I. standard observer and coordinate system for colorimetry. *J.*

*Opt. Soc. Amer.*, 1933, 23, 359-374.—This report makes available in convenient form the properties of the standard observer recently recommended for colorimetric purposes by the International Commission on Illumination. These data supersede the values published in the 1922 report of the committee on colorimetry, known as the O. S. A. excitation data. Forms are given for computing trilinear coordinates (trichromatic coefficients), dominant wave-length, colorimetric purity, and luminous transmission (or reflectance) from spectrophotometric data. Tables of the data needed are included for the 1931 I. C. I. standard illuminants A, B and C.—D. B. Judd (Bureau of Standards).

838. Kardos, L. A study on the development of visual perception. *Psychol. Bull.*, 1933, 30, 575.—Abstract.—J. F. Dashiell (North Carolina).

839. Kelly, G. A. Some observations on the relation of cerebral dominance to the perception of symbols. *Psychol. Bull.*, 1933, 30, 583-584.—Abstract.—J. F. Dashiell (North Carolina).

840. Kleinbub, M. Über die Unterschiedsschwelle für Helligkeiten bei verschiedenen Abständen der Vergleichsobjekte und Fixationswechsel. (The differential limen for brightness with different intervals of the comparison objects and with change of fixation.) Berlin: Walter, 1933. Pp. 26.—R. R. Willoughby (Clark).

841. Kremer, A. Über den Einfluss des Blindseins auf den blinden Menschen. Untersuchungen über das Problem des Verstehens Blinder als eine Grundlage der Blindenpädagogik. (The influence of blindness on blind individuals. Investigation on the problem of the comprehension of the blind as a groundwork for pedagogy for the blind.) Düren: Fürsorge f. d. Blinden d. Rheinprovinz, 1933. Pp. 121.—R. R. Willoughby (Clark).

842. Lampis, E. Un fenomeno ottico. (An optic phenomenon.) *Boll. di oculist.*, 1932, No. 8, 896-908.—The author observed that the sensation provoked at night in the retina by a faint irradiation of light is modified in a special manner when the room is suddenly illuminated. An explanation is offered.—R. Calabresi (Rome).

843. Laricchia, F. Alterazioni oculari nel sordomutismo. (Ocular changes in deaf mutes.) *Ann. oftalmol. e clin. ocul.*, 1931, No. 1, 11-20.—The author examined 150 deaf mutes and found various ocular anomalies of refraction and muscular balance, with a greater frequency for the congenital forms. These anomalies make a part of the general picture of arrested organic development.—R. Calabresi (Rome).

844. Liddo, S. La soglia dell' eccitamento (retinico-nucleare) con le diverse luci monocromatiche valutate con lo spettrofotometro. (The threshold of retinal-nuclear excitability with different monochromatic lights, evaluated with the spectro-photometer.) *Ann. di oftalmol. e clin. ocul.*, 1932, No. 3, 201-212.—The author establishes the relative and absolute limens for retinal stimulation.—R. Calabresi (Rome).

845. Lindberg, J. G. Über direkten und inversen Astigmatismus in der Privatpraxis eines Augenarztes mit besonderer Beachtung der Fälle von direktem Astigmatismus im einen Auge und inversem im Anderen. (Concerning direct and inverse astigmatism in the private practice of an eye physician, with particular consideration of cases with direct astigmatism in one eye and inverse in the other.) *Acta Ophth.*, 1933, 11, 264-279.—Statistical treatment of 2122 cases exhibiting total astigmatism reveals that the usually found relative distribution of "with" and "against the rule" astigmatism is not encountered when cases of less than plus or minus 1 diopter of astigmatism are included in the computation. When these cases are included, the majority of cases are found to be cases of inverse ("against the rule") astigmatism. Of the 19 cases exhibiting inverse astigmatism in one eye and direct in the other: 10 cases were found showing the stronger curvature in the eye with the inverse astigmatism, in 5 cases the relationship is reversed, and in the remaining 4 cases the curvature is equal in both eyes. The author concludes that this result tends to support the conception that the origin of inverse astigmatism may be more or less related to the development of myopia.—R. J. Beitel, Jr. (Clark).

846. Luckiesh, M., & Moss, F. K. The dependency of visual acuity upon stimulus-distance. *J. Opt. Soc. Amer.*, 1933, 23, 25-29.—This experiment was undertaken to determine whether variation in visual acuity with differences in distance of the stimulus is a true anomaly or an artifact, and to extend investigation to conditions of binocular vision at brightness levels commonly used. Two types of test-object were used: the "parallel-bar," consisting of two white bars on a black background separated by a distance equal to the width of the bars; and the Ives "parallel-line" test-object. Size of the details could be altered by the observer. 10 subjects each made 50 threshold acuity determinations with the "parallel-line" test object at distances of 60, 120 and 280 cm. and brightnesses of 1 and 10 millilamberts; and with the "parallel-bar" object at a brightness of 1 millilambert and distances of 120 and 280 cm. The former test-object yielded higher ratings in each case. For each subject under each set of conditions, acuity, measured by the reciprocal of the visual angle in minutes subtended by the critical detail, increased with increase in distance between observer and stimulus. Variations in size of pupil account for only a fraction of these differences, but a significant correlation was found between amount of increase in pupil size and of increase in acuity for different observers. It is suggested that other factors involved in accommodation may complete explanation of the anomaly.—M. R. Stoll (Johns Hopkins).

847. Margotta, G. Sull' aumento di spessore del cristallino nell' accomodazione. (Concerning the increase in thickness of the lens in accommodation.) *Boll. ocul.*, 1932, No. 9, 928-941.—The observations and calculations of the author show that a parabolic form of the lens surface is as incompatible with an

- increase in lens thickness as is a spherical form.—*R. Calabresi* (Rome).
848. Marulli, A. *La sensibilità profonda in funzione del tempo di stimolazione.* (Deep sensitivity as a function of the time of stimulation.) *Racc. pubbl. Sci. Ist. Med.-leg. Aeronaut.*, 1932, 4, 3-10.—Evidence is given for the importance of time of stimulation in determining the deep sensitivity of aviators. The time of stimulation affects the results on the lower limen and on the perceptive capacity for the direction and size of movement employed as a stimulus. The research was conducted with the set-up of Parodi modified by the author.—*R. Calabresi* (Rome).
849. Mendoza, R. *La estereoscopia sin estereoscopia.* (Stereoscopy without a stereoscope.) *Rev. oto-neuro-oftal.*, 1933, 8, 315-316.—The author presents figures which yield a depth effect without the use of the stereoscope. This is free stereoscopy.—*J. W. Nagge* (Chicago).
850. Miles, W. R. *Ambiguous patterns of apparent visual movement.* *Psychol. Bull.*, 1933, 30, 545.—Abstract.—*J. F. Dashiell* (North Carolina).
851. Morinaga, S. *Untersuchungen über die Zöllnersche Täuschung.* (Investigation on the Zöllner illusion.) *Jap. J. Psychol.*, 1933, 8, 195-243.—With German abstract.—*R. R. Willoughby* (Clark).
852. Morsh, J. E. *The effect of auditory deficiency upon motor performance.* *Psychol. Bull.*, 1933, 30, 607-608.—Abstract.—*J. F. Dashiell* (North Carolina).
853. Munsell, A. E. O., Sloan, L. L., & Godlove, I. H. *Neutral value scales. I. Munsell neutral value scale.* *J. Opt. Soc. Amer.*, 1933, 23, 394-411.—An historical survey traces the development of two methods of determining value scales, the j.n.d. method and the method of equal sense differences. Both methods were used in this study. Although the number of j.n.d. steps between the minimal and maximal reflectances varied considerably for the six different observers, calculations of a value scale of ten equidistant sensation steps gave results which agreed closely for all observers. Fourteen unpracticed observers made judgments by the method of equal sense differences under similarly controlled conditions. These agreed closely among themselves and also with the results obtained by the former method. The feasibility of the second method is demonstrated by the fact that results for the fourteen unpracticed observers each making a single series of determinations equal in precision those for six observers using the j.n.d. method and each making five to six separate determinations.—*M. R. Stoll* (Johns Hopkins).
854. Murata, T. *Experimentelle Untersuchung über "Kan"-erlebnis.* (Experimental investigation on the occult experience.) *Jap. J. Psychol.*, 1933, 8, 651-699.—With German abstract.—*R. R. Willoughby* (Clark).
855. Obonai, T. *Contributions to the study of psychophysical induction. III. Experiments on the illusion of filled space.* *Jap. J. Psychol.*, 1933, 8, 699-721.—*R. R. Willoughby* (Clark).
856. Ogasawara, J. *Ueber die Sehgrößenkonstanz.* (Concerning visual size constancy.) *Jap. J. Psychol.*, 1933, 8, 549-579.—*R. R. Willoughby* (Clark).
857. Oswald, —. *Sull'acutezza visiva a luce decrescente.* (The variation of visual acuity with diminishing light.) *Ann. di ottalmol.*, Sept., 1932.—In the observations which have been made on the subject of the variation of visual acuity in diminishing light, no account has been taken, says Oswald, of the size of the pupil. He has tested the acuity of a number of individuals both with the normal pupil and with the pupil dilated by homatropine. The dilation of the pupil has two effects: by enlargement it allows a greater amount of light to enter the eye, but at the same time by uncovering the periphery of the lens a greater degree of blurring of the image is found owing to aberration. In the tests Oswald used a Landolt's ring 1.5 mm. broad. This was placed at 6 m. from the patient and illuminated by a lamp whose power was varied by a resistance between 41.5 candles (Hefner) and 0.035 candles. The acuity in the undilated eyes showed little decrease until the light had fallen to one-tenth of the maximum. From this point onward the acuity fell rapidly. With the dilated pupil the acuity diminished more rapidly, but below a certain intensity the two curves were very close. The curve of variations of acuity with the undilated pupil is approximately a hyperbola.—*R. J. Beitel, Jr.* (Clark).
858. Panico, —. *Reazione paradossa della pupilla.* (Paradoxical pupil reaction.) *Rass. ital. d'ottalmol.*, Sept.-Oct., 1932.—The paradoxical reaction of the pupil to light is rare, but the paradoxical reaction to accommodation is much rarer. The first is almost always preceded by miosis, and is always associated with severe syphilitic lesions of the central nervous system. There are several conditions which may give rise to the diagnosis of paradoxical reaction to light when this is not really present: of these the most common depends on the fact that the eye under examination may diverge either from muscular paresis or heterophoria; we may then often see movement of the pupil.—*R. J. Beitel, Jr.* (Clark).
859. Pavia, J. L. *Lesiones de color verde en fondo de ojo.* (Green lesions in the depth of the eye.) *Rev. oto-neuro-oftal.*, 1933, 8, 328-332.—A number of ocular disturbances are reported in which greenish lesions appear in the retina.—*J. W. Nagge* (Chicago).
860. Pikler, J. *Widerspruch zwischen Augenstellung und subjektivem Blick als normaler und grundlegender Sehakt.* (Opposition between eye position and subjective line of regard as a normal and fundamental act of vision.) *Zsch. f. Sinnesphysiol.*, 1933, 64, 148-151.—The author attempts to interpret the fact that with constant eye position there may be different apparent or subjective lines of regard.—*F. W. Irwin* (Pennsylvania).
861. Pratt, C. C. *Time-errors in the method of single stimuli.* *J. Exper. Psychol.*, 1933, 16, 798-814.

—In this experiment the subject was asked to judge the intensity of a sound in terms of one of a series of values ranging from 1 to 9. Number 5 was to be reserved for those impressions which fell so directly in the middle of a series that it was impossible to assign values either above or below. The results showed that the psychometric functions secured by this method compare favorably with those secured by the relative procedures. Time-errors tended to be negative at the upper end of the intensity scale and positive at the lower end. The following tentative generalizations are drawn with respect to time-errors in general: (1) The trace of the first member of a pair of stimuli presented for judgment with respect to intensity decreases in magnitude after the first 3 seconds, thus shifting the intensity of the second member upwards. (2) When an impression from some closely related secondary stimulus enters the comparison field, the intensity of the second member is shifted in the direction opposite to that of this impression. (3) High intensities, when judged on an absolute scale, are shifted upwards; low intensities downwards.—*H. W. Karn* (Clark).

862. Rabinovich, V. I. [The question of transient double vision.] *Sovet. psikhonevr.*, 1932, No. 5, 34-36.—*A. Yarmolenko* (Leningrad).

863. Ranson, S. W. Cutaneous sensation. *Science*, 1933, 78, 395-399.—The problem of cutaneous sensation divides into three parts: what happens in the skin when each of the cutaneous senses is excited, how the disturbances set up there are propagated to the brain, and how they make themselves felt in consciousness. Omitting the last part, Ranson attacks the first two, reviewing experimental procedures, theories regarding cutaneous sensation and nerve action, and results of recent experimentation. From work on the sense organs of the skin (Bazett, Strughold and Karbe) evidence has been obtained to indicate that the end bulbs of Krause serve as cold receptors, end organs of Ruffini as warm receptors, nerve endings within hair follicles and probably the corpuscles of Meissner and unencapsulated bulb-like endings described by Bazett as touch receptors, and free nerve endings as pain receptors. Work on sensory fibers is bringing evidence that different types of fibers mediate the four varieties of sensations, touch by the large myelinated fibers, temperature by intermediate size fibers, and pain by fine myelinated and unmyelinated fibers. Data on the distribution of the cutaneous sensations in various regions of the skin are included in three tables.—*P. Seckler* (Radcliffe).

864. Reger, S. N. The extra-auditory sensations in the ear arising from stimulation by excessively great sound pressures. *Psychol. Bull.*, 1933, 30, 576.—Abstract.—*J. F. Dashiell* (North Carolina).

865. Roaf, H. E. Color vision. *Physiol. Revs.*, 1933, 13, 43-80.—Recent work in color vision is described. From experimental results, it is suggested that there are three sets of receptors, one related to the long, another to the medium, a third to the short wave lengths of the spectrum. "Yellow" may be looked upon as the region of sharpest transition

between stimulation of the receptors for long and medium wave lengths. "Blue-green" may be regarded as the region of sharpest transition between receptors for medium and short wave lengths. Data on red-green and blue blindness fit in nicely with this hypothesis. Hecht's theory is criticized. This hypothesis differs from that of Young and Helmholtz in two ways. The first is the inhibition produced by the sensation of red on that of green and violet and the inhibition of the sensation of violet by that of green. The second is that the sensation of white is due to unequal stimulation of the three receptors instead of the equal stimulation of them, as in the current view.—*M. A. Rubin* (Clark).

866. Rosenzweig, S., & Koht, A. G. The experience of duration as affected by need-tension. *J. Exper. Psychol.*, 1933, 16, 745-774.—In a series of experiments upon the estimation of time intervals ranging from 1 to 10 minutes in length but filled so as to produce different degrees of need-tension, (i.e., a state of strain, accompanied sometimes by emotional excitement, that results whenever any need is aroused) a general tendency was found for periods in which there is a relatively greater need-tension to be estimated as shorter than periods in which there is less. Certain theoretical suggestions are offered in which attention is directed to the similarity of the phenomena under consideration to everyday instances of wishful thinking.—*H. W. Karn* (Clark).

867. Rusk, R. D. An analytic color-tone chart. *J. Opt. Soc. Amer.*, 1933, 23, 182-183.—A color-tone chart of the familiar triangular form is shown with each element divided into sixteen small squares which are variously marked to indicate the proportions of white and color present. Thus the relations of each tone to every other are graphically represented. Interpretation is made in terms of colored lights and of pigments. The author indicates the usefulness of the chart in teaching and in clarifying color terminology.—*M. R. Stoll* (Johns Hopkins).

868. Schaefer, H., & Schmitz, W. Zur Physiologie des Nervenschwirrens und der Kitzelempfindung. (The physiology of the sensations of "fluttering of the nerves" and of tickle.) *Zsch. f. Sinnesphysiol.*, 1933, 64, 161-174.—In a muscle-nerve preparation the action current which passes a part of the nerve which is under mechanical pressure shows a series of small separate actions. These actions, which are due to the excitation of individual fibers, are the physiological basis of the sensation of "fluttering of the nerves." An analogous central process is believed to be responsible for tickle.—*F. W. Irwin* (Pennsylvania).

869. Stiles, W. S., & Crawford, B. H. The liminal brightness increment as a function of wave-length for different conditions of the foveal and parafoveal retina. *Proc. Roy. Soc. London*, 1933, 113B, 496-527.—Full experimental details are given of an investigation of liminal difference increment under various conditions of dark and brightness adaptation in foveal and parafoveal vision. The value of the liminal difference increment is expressed throughout in absolute energy units for various wave lengths

throughout the spectrum. The curves obtained for the completely dark-adapted eye have the same shape as those obtained under similar conditions by Abney and Watson. Those obtained for wave lengths greater than 620 m $\mu$  are nearly the same, but with shorter wave lengths the parafovea is shown to become more sensitive than the fovea. Curves are presented also for brightness discrimination under conditions of adaptation to high brightness levels of white light. These are shown to have characteristic forms, and the parafovea shows somewhat greater sensitivity in the blue end of the spectrum. Further results were obtained with the eye adapted to high brightnesses of colored light. It is maintained that the results tend to agree with expectations according to the trichromatic theory.—F. C. Bartlett (Cambridge, England).

870. Tachibana, Y. *Neue experimentelle Untersuchungen über die Ausdehnung der Farben. I.* (New experimental investigation on the spreading of color. I.) *Jap. J. Psychol.*, 1933, 8, 721-745.—With German abstract.—R. R. Willoughby (Clark).

871. Takano, K. *Experimentelle Untersuchungen über die Vibrationsempfindungen.* (Experimental investigation on vibration sensations.) *Jap. J. Psychol.*, 1933, 8, 73-91.—With German abstract.—R. R. Willoughby (Clark).

872. Tamaike, J. *On the change of the phenomenal size of figure in correspondence with the structure of the visual field.* *Jap. J. Psychol.*, 1933, 8, 576-588.—With German abstract.—R. R. Willoughby (Clark).

873. Thompson, I. M. *The effects of alternating currents upon cutaneous sensory thresholds.* *Science*, 1933, 78, 268-269.—The author reports work of his own, as well as that of other investigators, which seems to show a clearly differential susceptibility to elevation by the current from an alternator on the part of the thresholds of the different cutaneous sensations. One figure is presented.—E. H. Kemp (Clark).

874. Tyndall, E. P. T. *Chromatic sensibility to wave-length difference as a function of purity.* *J. Opt. Soc. Amer.*, 1933, 23, 15-24.—Using apparatus designed by Priest and Gibson, the writer has determined sensibility to wave-length difference for his right eye: (1) for stimuli of unit purity (spectral light) from 450 to 645 m $\mu$ ; (2) for stimuli consisting of artificial noon sunlight plus homogeneous light of some selected wave-length, the wave-lengths being 455, 470, 481.5, 493, 530, 580, 635 m $\mu$ , and the purities ranging from unity to a few percent; (3) for stimuli consisting of homogeneous light of wave-length 455 plus some one of heterogeneous stimuli specified as follows: (a) equal energy, (b) color temperature 2570° K, (c) color temperature over 24,000° K; (4) for a stimulus consisting of homogeneous light of wave-length 530 m $\mu$  plus heterogeneous light of color temperature over 24,000° K. The results of (1) are concordant with previous determinations by others. The least perceptible difference (LPD) in wave-

length for (2) shows, for wave-lengths 635, 580, 530 and 493 m $\mu$ , at first a slow and then, near zero purity, a rapid increase as purity is decreased. For wave-length 455 m $\mu$  with decreasing purity, the LPD at first increases and then decreases to a pronounced minimum at about 15% purity, increasing rapidly beyond this. Wave-lengths 470 and 481.5 m $\mu$  show a similar but less marked effect. The experiments noted under (3) and (4) were undertaken in order to study the effect of the spectral distribution of the heterogeneous stimulus in modifying the peculiar results just described for wave-lengths less than 482 m $\mu$ . It is shown that the form of the curve showing LPD as a function of purity depends upon the spectral distribution of the heterogeneous stimulus. Two hypotheses are proposed to account for the peculiar results for short wave-lengths.—E. P. T. Tyndall.

875. Vita, A. *Sulle modificazioni di grandezza e di forma dello spazio ottico soggettivo prodotte dagli occhiali.* (The modifications of the size and form of subjective visual space produced by glasses.) *Rass. Ital. ottalmol.*, 1932, Nos. 9-10.—The impression of increased size and of shortening seems to be caused particularly by the modification of the size of the retinal image. Torsion appears to be appreciated not by ocular movements but by peripheral retinal images. It should be corrected in relation to the pupil and not with reference to the center of rotation. It appears that accommodative micropsia and macropsia are not involved in the modification of the apparent size of objects with persons who wear glasses, if convergence is not altered.—R. Calabresi (Rome).

876. Wagner, L. *Eszmélet, érzéklet, észlelet.* (The inner perception, the awareness, the perception.) *Magyar Psychol. Szemle*, 1933, 6, 42-62.—Besides the perception of sensory impressions there is also an "inner perception" of psychic data. This inner perception is not identical with intuition; it is also different from Ach's concept of *Bewusstheit* and Messer's concept of "objectivation." Wagner gives a detailed phenomenological analysis of the process of inner perception.—A. Angyal (Worcester State Hospital).

877. Weber, C. O. *The constancy of gray with constant and with changing illumination.* *J. Exper. Psychol.*, 1933, 16, 815-830.—The experiments reported in this article involve a comparison of *Farbenkonstanz* as it appears under constant illumination with *Farbenkonstanz* as it appears under rapidly changing illumination. An analysis of the results shows that *Farbenkonstanz* is somewhat better for constant than for changing illumination, but the difference is considerably less than one would expect, since the illumination changes covered a range of 1:5 in a period of 1 second, and the subjects had to make their judgments under conditions of extreme reduction of illumination. A section of the report is devoted to a consideration of the experimental findings in the light of various theories of color constancy, especially in so far as they are concerned with the role played by illumination.—H. W. Karn (Clark).

878. Wedell, C. H. Absolute judgment of pitch. *Psychol. Bull.*, 1933, 30, 546.—Abstract.—J. F. Dashiell (North Carolina).

879. Werner, K. Über das Verhalten der Geschmacksgleichungen bei Verdünnung der Ausgangslösung. (The behavior of taste equations with dilution of the original solution.) *Zsch. f. Sinnesphysiol.*, 1933, 64, 126-147.—Compound equations were obtained for six inorganic salts in various dilutions. In general, the relation between the factors of proportionality for dilutions of the salts and those for dilutions of the representatives of the four primary taste qualities was not constant, though exceptions were found. The equations also varied qualitatively near the thresholds of the primary qualities. Large individual differences were present.—F. W. Irwin (Pennsylvania).

880. Wever, E. G. The physiology of hearing: the nature of response in the cochlea. *Physiol. Revs.*, 1933, 3, 400-426.—Theories of hearing are outlined and tested by evidence from anatomical, psychological, and pathological information. The author suggests that the resonance-volley theory fits all the known facts better than any other theory of audition.—M. A. Rubin (Clark).

881. Wolner, M., & Pyle, W. H. An experiment in individual training of pitch-deficient children. *J. Educ. Psychol.*, 1933, 24, 602-608.—Training was given to seven pupils who had been under musical instruction for 5, 6 or 7 years and who had not learned to distinguish one pitch from another. The results lead the authors "to conclude that the opinion rather generally held, that inability to distinguish pitch is due to some native structural defects in the hearing mechanism and cannot be affected by training or practice, is not correct." It may even turn out to be true that children with deficient auditory mechanisms can be trained to distinguish pitch. Bibliography of 31 titles.—J. A. McGeoch (Missouri).

882. Woodrow, H. Errors in weight discrimination with a varying standard and their significance for the theory of comparison. *Psychol. Bull.*, 1933, 30, 576.—Abstract.—J. F. Dashiell (North Carolina).

883. Zinner, E. Über die Darstellung der Reizempfindungskurve. (The representation of the stimulus-sensation curve.) *Zsch. f. Sinnesphysiol.*, 1933, 64, 175-176.—After commenting upon a formula applied by Hecht to Brodhun's measurements of the DL for white light over a wide range, Zinner applies his tangent formula to König's results. Though a poorer fit is obtained here than with astronomical observations, Zinner believes this to be due to the much wider stimulus range employed by König.—F. W. Irwin (Pennsylvania).

[See also abstracts 762, 773, 774, 783, 896, 939, 942, 949, 960, 1006, 1018, 1027, 1033, 1057, 1061, 1069, 1148, 1158, 1221, 1261, 1287, 1289, 1382, 1389, 1399.]

#### FEELING AND EMOTION

884. Acqua, M. L'esame dell' emotività nei candidati aviatori. Ricerche sperimentali. (Examination of emotion in aviation applicants. Experimental

researches.) *Racc. pubbl. Sci. Ist. Med.-leg. Aeronaut.*, 1932, 4, 36-39.—The examination of the influence of emotional states on the superior cortical functions by means of several psychometric tests reveals three types of subjects: in the first type, the least numerous, emotion increases the senso-perceptive forces; in the second type, emotion diminishes some mental processes and augments others; in the third type, emotion is so exaggerated as to render the subject unsuited to the profession of pilot.—R. Calabresi (Rome).

885. Cason, H., & Cason, E. B. Affectivity in relation to breathing and gross bodily movement. *J. Gen. Psychol.*, 1933, 9, 130-156.—A study was made of the feelings and emotions called out by visual stimuli. Measures were obtained of the latent time and duration of the emotions and of the amount of breathing and gross bodily movement which occurred while the emotions were present. Breathing was measured by a specially constructed belt apparatus or electric pneumograph. Results are given on speed, duration, breathing, movement, feelings, the kinds of emotions evoked, and sex differences.—H. Cason (Wisconsin).

886. Dockera, F. C. Emotion as disorganized response. *Psychol. Bull.*, 1933, 30, 620.—Abstract.—J. F. Dashiell (North Carolina).

887. Gaskill, H. V. The objective measurement of emotional reactions. *Genet. Psychol. Monog.*, 1933, 14, 177-280.—From a larger number of individuals participating in the complete study 30 were chosen for record in the present research. The subjects were required to do some mental work (following directions). They also read. For the emotional situations they were exposed to a western bull snake over 6 feet in length; Klaxon horns were unexpectedly sounded, and other loud sounds were produced. Moving pictures designed to arouse various emotions were shown to the subjects. Emotional reactions were recorded and measured by means of records of blood pressure, respiration, arm movements, and hydrogen-ion concentration of saliva. "Variability in these physiological reactions was increased in emotional situations. The greatest increase in variability occurred when intense fear stimuli were presented. . . . Blood pressure rises and drops were more frequent in fear. . . . In all types of emotional situations arm movements in lateral directions were more frequent than in longitudinal directions. Results of hydrogen-ion determination were contrary to those noted in previous investigations." The literature on the subject is reviewed and 66 references are cited.—F. M. Teagarden (Pittsburgh).

888. Meltzer, H. Students' adjustments in anger. *J. Soc. Psychol.*, 1933, 4, 285-309.—Anger diaries were kept for one week by 93 students at the University of Oregon. The results with respect to frequency, duration, time of occurrence, type of response made, etc., are compared for the two sexes and for students belonging to fraternities and sororities as against those outside such organizations. The results are also compared with those previously obtained by

Gates for New York City students. The writer concludes that the anger response is extremely variable as to both instigation and expression. The anger diary is held to be an adequate means of investigating anger as a problem in psychosocial dynamics rather than as a simplified, stereotyped response.—*E. B. Newman* (Harvard).

889. Mitra, S. C. Suggestions for a new theory of emotions. *Indian J. Psychol.*, 1933, 8, 1-36.—The author presents a tentative theory relating to the emotional life of man. Feeling is assumed to constitute the essence of mind. Every mind is a store of energy the nature of which is not at the present known. The original fundamental feeling of mind is the feeling of harmony, and pleasantness is the experience of this harmony. Harmony is first disturbed at birth; simultaneously with that act the external world begins to thrust itself upon the mind. Unpleasantness is the experience of this disturbed harmony, and therefore is later in its genesis than pleasantness. Mind always yearns for the lost harmony, and action ensues to bring it back. Complexities develop in the procedure in which the external world acts on the mind and complications arise in the modes in which the mind seeks to defend itself against the violations of its harmony and to recover its lost equilibrium. Not only thinking but suppression and repression, introjection and projection are used by the mind for gaining its end. When a degree of balance is maintained we have a normal mind. When the methods adopted fail in their object we have pathological cases and dissociated minds.—*H. W. Karn* (Clark).

890. Talenti, C. Sulla valutazione dell'emozionabilità per mezzo della reazione psicogalvanica. (Concerning the evaluation of emotionality by the psychogalvanic reaction.) *Racc. pubbl. Sci. Ist. Med.-leg. Aeronaut.*, 1932, 4, 94-98.—The author was unable to find any correlation between the psychogalvanic reaction and the emotionality of the subject.—*R. Calabresi* (Rome).

891. T'ang, Y. James' theory of emotions and its criticisms. *Quar. J. Lit. & Phil.*, (Chinese), 1933, 2, 411-421.—This paper is a discussion and defense of James' theory of emotions as against the six criticisms put forth by Cannon.—*C.-F. Wu* (Nat. Res. Instit. Psychol., Shanghai).

892. Worcester, D. A. In defense of the whole—emotion is at least a term of convenience. *Psychol. Rev.*, 1933, 40, 478-480.—An answer to Meyer's denial that emotions deserve recognition as distinct entities separate from the whole mass of physiological adjustments of organisms. The criticism is equally true of many other classifications which nevertheless have aided in advancing knowledge. There may be different arrangements of elements which yield conditions worthy of differentiation even though the component elements themselves are identical.—*A. G. Bills* (Chicago).

[See also abstracts 894, 895, 912, 914, 1013, 1123, 1224, 1390.]

## ATTENTION, MEMORY AND THOUGHT

893. Britt, S. H. The relationship between transfer of learning and age of previous associations. *Psychol. Bull.*, 1933, 30, 543.—Abstract.—*J. F. Dashiell* (North Carolina).

894. Bunch, M. E., & Wientge, K. The relative susceptibility of pleasant, unpleasant, and indifferent material to retroactive inhibition. *J. Gen. Psychol.*, 1933, 9, 157-178.—The investigation was concerned with the relative susceptibility of pleasant, unpleasant, and indifferent words to retroactive inhibition from learning indifferent material. The words were learned by the anticipation method, and were classified on the basis of the S's introspections and galvanic skin reactions. An earlier conclusion of Tolman (*Psychol. Monog.*, 1917, 25, No. 107) was confirmed, that pleasant material shows the least amount of retroactive inhibition.—*H. Cason* (Wisconsin).

895. Carter, H. D., & Jones, H. E. A study of emotional factors in learning and retention. *Psychol. Bull.*, 1933, 30, 586.—Abstract.—*J. F. Dashiell* (North Carolina).

896. Compton, R. K., & Young, P. T. A study of organic set: immediate reproduction of spatial patterns presented by successive points to different senses. *J. Exper. Psychol.*, 1933, 16, 775-797.—The process of establishing an organic set was studied by presenting 6-point patterns to subjects by successive points, and calling for immediate reproduction of the pattern-sequence. The same patterns were presented in lights, in sounds, in touches, and in modes combining lights, sounds and touches. Reproduction scores were studied and the following main conclusions drawn: (1) The visual, auditory and mixed visual-auditory modes of presentation gave nearly equal reproduction scores. The tactual mode and the mixed modes containing tactual stimulation gave significantly lower scores. (2) Coefficients of correlation between modes of presentation indicated that the establishing of a set depends upon some inner bodily process common to all sense departments more than upon the particular sense organs stimulated. (3) The rank order for pattern difficulty was similar for all modes. Coefficients of correlation varied from .81 to .96. The coefficients indicate that pattern difficulty is not greatly dependent upon the sense department utilized in presenting a pattern, but more upon the spatial and temporal relations within the pattern itself.—*H. W. Karn* (Clark).

897. Easley, H. An analysis of the curves of learning and forgetting code material. *J. Educ. Psychol.*, 1933, 24, 634-640.—24 subjects practiced 10 min. daily for 20 days translating repeatedly a single sentence into the Stanford-Revision code, which had been illustrated and explained to them. When the average score is plotted against practice periods, the curve is a straight line. When, however, the data are rearranged so as to give what the author considers to be an equation of practice periods, a curve with initial positive acceleration appears. Groups of 6

subjects each were tested after 5, 10, 17 and 31 days. The curve of retention shows a slight rise from 0 to 5 days, a very slow drop from 5 to 17 days, and a sharp drop from that point to 31 days.—J. A. McGeoch (Missouri).

898. Franz, S. I. The inadequacy of the concept of unilateral cerebral dominance in learning. *J. Exper. Psychol.*, 1933, 16, 873-874.—A discussion of the relation of some earlier experiments, originally planned to determine some of the cerebral conditions in sensory learning, to the widely accepted belief in the dominance of one hemisphere in persons who exhibit a motor handedness greater than 50%. Experimental findings reveal, for example, that in visual apprehension and learning there is not that hemispherical dominance that has been supposed. Furthermore, common experience seems to bear out this general conclusion. "We appear to be able to see an automobile approaching from the left side (and therefore with the right halves of the retinae and the corresponding hemisphere) as well as one approaching from the right. We also appear to be able to take in parts of other scenes equally well with both halves of the retinae."—H. W. Karn (Clark).

899. Gengerelli, J. A. Similarity and retroaction. *Psychol. Bull.*, 1933, 30, 586.—Abstract.—J. F. Dashiell (North Carolina).

900. Gulliksen, H. An equation of the learning curve based on the law of effect. *Psychol. Bull.*, 1933, 30, 571.—Abstract.—J. F. Dashiell (North Carolina).

901. Henry, L. K. The role of insight in plane geometry. *Psychol. Bull.*, 1933, 30, 576-577.—Abstract.—J. F. Dashiell (North Carolina).

902. Hsiao, H. H. A preliminary study of the formal development of memory. *J. Testing* (Chinese), 1933, 3, 55-75.—In this investigation a vocabulary of 80 pairs of stimulus and response words were selected from an elementary-school practical vocabulary. These word-pairs were classified into four groups, A, B, C and D, each consisting of 10 pairs. A total of 639 subjects of both sexes, whose ages ranged from 8 to 19 years, were tested. The stimulus and response words were successively presented in a pre-arranged order, the time of exposure being limited to 1 sec. The subject was required to read silently once when each word was shown to him. After the presentation of each group, an immediate retention test was given. In this retest the order of presentation of the stimulus words was not the same as in the learning series. The subject was required to write out the proper response word when a stimulus word was presented. The results showed that for memory of physical relationships and for logical-abstract material the growth of immediate retention had a tendency toward positive acceleration before the age of 13 and a tendency toward negative acceleration after this age. For logical-concrete and concrete-associated-with-abstract materials, the growth of immediate retention between 9 and 12 years of age was a linear curve, then progressed more slowly, and finally after the age of 14

the curve would not rise again. It was found that except for memory for logical-concrete material the age of decreased growth rate was earlier in girls than in boys, and that in all kinds of immediate retention there was only a slight or no growth after the age of 14 in both sexes. The results also showed that in all four kinds of immediate retention boys were superior to girls. It was concluded that the tests used seemed not to be limited to memory of pure language and rote memory. The author hinted that the interrelationship of the elements of test material had an influence on the test scores, a problem which needs further investigation.—C.-F. Wu (Nat. Res. Instit. Psychol., Shanghai).

903. Kuraishi, S. An experiment on the controlled association—a psychological study of thinking. *I. Jap. J. Psychol.*, 1933, 8, 353-377.—R. R. Willoughby (Clark).

904. Kurashkevich, S. G. [Data for the investigation of cipher memory.] *Sovet. psikhotekh.*, 1932, No. 6, 386-387.—A. Yarmolenko (Leningrad).

905. Lorge, I. An approximation to the value of rewards and punishments in learning. *Psychol. Bull.*, 1933, 30, 540-541.—Abstract.—J. F. Dashiell (North Carolina).

906. McGeoch, G. O. The whole-part problem in memorizing poetry. *Psychol. Bull.*, 1933, 30, 624.—Abstract.—J. F. Dashiell (North Carolina).

907. McGeoch, J. A. Studies in retroactive inhibition: I. The temporal course of the inhibitory effects of interpolated learning. *J. Gen. Psychol.*, 1933, 9, 24-43.—The course of retroactive inhibition was determined after intervals of 20 min., 1 hr., 24, 48, and 144 hrs.; and comparative measures of retention curves were made with and without immediately interpolated learning. The materials learned were lists of 10 adjectives which were exposed at a 1.8 sec. rate in an exposure apparatus and learned by the anticipation method. The savings scores yielded amounts of inhibition which varied irregularly over a small range and which consistently failed to give any regular change with increasing interval. The percentage of inhibition was approximately a constant over the interval used.—H. Cason (Wisconsin).

908. McGeoch, J. A. Studies in retroactive inhibition: II. Relationships between temporal point of interpolation, length of interval, and amount of retroactive inhibition. *J. Gen. Psychol.*, 1933, 9, 44-57.—A comparison was made between the amounts of retroactive inhibition, after intervals of 2 min., 1 hr., 24, 48, and 144 hrs., when interpolation occurred (1) immediately after the learning of the original list, and (2) just prior to the beginning of relearning. Lists of 10 adjectives were exposed at a 1.8 sec. rate by an exposure apparatus and were learned and relearned by the anticipation method. The positions of interpolation immediately subsequent to learning and just prior to relearning were occasionally equal in percentages of retroaction produced, but the position just before relearning often produced the greater inhibition.—H. Cason (Wisconsin).

909. McGeoch, J. A. Changes accompanying practice upon successive samples of verbal material. *J. Gen. Psychol.*, 1933, 9, 117-129.—A study was made of the changes which accompanied the learning of successive lists of adjectives, and these results were compared with those from a related experiment with nonsense syllables. The studies show that amount of transfer is a function of the material learned even when all lists within a given experiment are composed of similar materials, but under the conditions employed transfer uniformly appears at a negatively accelerated rate.—H. Cason (Wisconsin).
910. McGeoch, J. A. The influence of temporal point of interpolation upon degree of retroactive inhibition. *Psychol. Bull.*, 1933, 30, 624-625.—Abstract.—J. F. Dashiell (North Carolina).
911. McKinney, F. Quantitative and qualitative essential elements of transfer. *J. Exper. Psychol.*, 1933, 16, 854-864.—The object of this experiment was to investigate the quantitative and qualitative nature of an adequate transfer stimulus and to ascertain how much and what details of a given situation are adequate to evoke a given response. After learning to respond to 4 simple geometric figures, 104 subjects were presented with altered forms of one of these figures. The alterations varied from 10 to 30% in precise reductions and from perfect symmetry to apparent asymmetry. Transfer to these forms was measured in terms of percentage of response to them as the original stimulus. Results show the percentage of transfer to increase with the amount of alteration, but not proportionally with it. Symmetrical stimuli yield more transfer than asymmetrical stimuli of the same percentage of reduction, and are less affected by quantity of reduction. These results are interpreted as contradictory to a strict identical-element theory of transfer, and in agreement with a theory advocating meaning as the condition of similarity between an original and a transfer situation. The data show further the pronounced effect of a relatively small change in stimulating situation on retention, and they substantiate qualitative factors as important in the operation of cues in redintegration.—H. W. Karn (Clark).
912. McKinney, F. Certain emotional factors in learning and efficiency. *J. Gen. Psychol.*, 1933, 9, 101-116.—The periodic ringing of a clock increased the number of errors in maze learning, multiplication, and motor coordination; and the addition of a time limit and a suggestion of intellectual inferiority caused a still greater increase in errors. The author claims that although emotion affected learning, strong emotion did not act as a motive in a skilled act or in an intellectual task.—H. Cason (Wisconsin).
913. Melton, A. W. The relation between repetitions and length of list in the learning of meaningless and meaningful materials. *Psychol. Bull.*, 1933, 30, 542.—Abstract.—J. F. Dashiell (North Carolina).
914. Menzies, R. N. Memory for pleasant, unpleasant, and indifferent events of the recent past. *Psychol. Bull.*, 1933, 30, 574.—Abstract.—J. F. Dashiell (North Carolina).
915. Norem, G. M., & Wiederaenders, M. F. Studies in the psychology of learning. *Univ. Iowa Stud.: Stud. Educ.*, 1933, 8, No. 6, *Educ. Psychol. Ser. No. 1*. Pp. 75.—The first part of this study consists of a discussion of transfer of training experiments revalued by Norem, and the second part of a critique of the bond and Gestalt psychologies applied to certain problems of education, by Wiederaenders. In the first part 48 studies in the field of transfer are evaluated according to eight criteria, and their conclusions adjudged to be valid, doubtful or invalid. Suggestions are given for the adequate reporting of research in this field. In the second part, the respective theories of the learning process of the bond and Gestalt psychologies are presented, the general principles of method derived from these theories are stated, and a program of reading in the intermediate grades as conceived from the different viewpoints of these psychologies is outlined.—B. Wellman (Iowa).
916. Peel, Z. Similarity in form of original and interpolated learning and retroactive inhibition. *Psychol. Bull.*, 1933, 30, 573.—Abstract.—J. F. Dashiell (North Carolina).
917. Peters, H. N. Mediate association. *Psychol. Bull.*, 1933, 30, 574.—Abstract.—J. F. Dashiell (North Carolina).
918. Peterson, J. An experimental study of generalization in disc transfer problems. *Psychol. Bull.*, 1933, 30, 610-611.—Abstract.—J. F. Dashiell (North Carolina).
919. Price, B. The grasping of spoken directions as an age function in adults. *Psychol. Bull.*, 1933, 30, 588-589.—Abstract.—J. F. Dashiell (North Carolina).
920. Reiter, N. The relation of gross bodily movement to problem solving activity. *Psychol. Bull.*, 1933, 30, 572-573.—Abstract.—J. F. Dashiell (North Carolina).
921. Ross, C. C. The influence upon achievement of a knowledge of progress. *J. Educ. Psychol.*, 1933, 24, 609-619.—In a series of laboratory experiments the withdrawal of knowledge of results was not followed by a decrement in performance. This contradicts the earlier conclusion of Book and Norvell. A second series of experiments was conducted with college classes. Four degrees of knowledge of progress, varying from full knowledge to no knowledge, were given. Progress was measured by objective tests on the material of the course. No important differences appear among the four groups. The failure of knowledge of progress to affect learning is interpreted as due to the fact that the students' own impressions of their progress were almost as effective as the objective information given. The correlation between student estimates and test scores was .71. It is concluded that knowledge of test scores need not be a factor of practical classroom significance.—J. A. McGeoch (Missouri).
922. Strohal, R. Untersuchungen zur deskriptiven Psychologie der Einstellung. (Studies in the descriptive psychology of mental set.) *Zsch. f. Psychol.*,

1933, 130, 1-27.—Alternative connective and dispositional sets (v. Kries) were built up in such a way that the same stimulus object evoked a different association for each set. A preliminary signal presentation, e.g. a color, instructed the observer as to which set he was to adopt. Sets were shifted irregularly, and extensive reports were made. It was found that the operation of a particular set is paralleled consciously by the presence of a characteristic impalpable experience (i.e. an experience not to be described in terms of concrete imagery), which persists relatively unchanged as long as the set persists, and changes as soon as a new set is introduced. Such an experience of set may be characterized as "impalpable knowing" (*unanschauliches Wissen*).—R. B. MacLeod (Swarthmore).

923. Thorndike, E. L. A theory of the action of the after-effects of a connection upon it. *Psychol. Rev.*, 1933, 40, 434-439.—An answer to the common objection that no one has shown how an after-effect of a connection works back on it. What is the action of a satisfier? Denying that it exerts its strengthening effect by stimulating the general circulation, Thorndike postulates some "confirming reaction" within the neurons themselves. This confirming reaction is independent of sensory pleasure, and seems often to issue from some overhead control in the nervous system, correlated with a purpose or active self, though not always. After a confirming reaction has occurred with a given act, there will be an increased probability of repetition of that act, and the strengthening causes the repetition, not vice versa. The potency of the confirming reaction is not directly related to the intensity of the satisfier. What mechanism explains the confirming reaction? The answer is, the mechanism of reinforcement applied to a connection.—A. G. Bills (Chicago).

924. Tsukada, T. Inhibitory mental attitude and association process. *Jap. J. Psychol.*, 1933, 8, 377-417.—R. R. Willoughby (Clark).

925. Vygotski, L. S. *Razvitie aktivnogo vnimania v detskom vozraste*. (Development of active attention in a pre-school child.) Moscow: G. I. Z., 1929. Pp. 112.—Vygotski bases his thesis on the supposition that active attention is the result of the socio-cultural process of a child's growth. His contention is that signs direct, stimulate and support attention. The author in his research problem makes an attempt to work out an analytical structure and growth of active attention. The observations and tests were made on normal, deaf-mute and retarded children. They consisted of three series of experiments. In the first series an attempt was made to ascertain the role of attention and its function in the process of structural connection and the actual choice based on this connection. The second series was based on the arousal of attention and its distraction, in the process of primary abstraction and response. The choice of plurality is based on the selection of separate elements. The third series dealt with the analysis of the concrete process of active attention. The choice is based on separate elements by the aid of auxiliary

stimulus-means. The author arrives at the conclusion that active attention is a significant function based on the use of signs. He attempts to explain his theory from the point of view of social genesis.—L. S. Maeth (New York City).

926. Whitely, P. L., & Blankfort, G. The influence of certain prior conditions upon learning. *J. Exper. Psychol.*, 1933, 16, 843-853.—This study was concerned with the problem of the influence of prior conditions upon learning. Two different techniques were used in an endeavor to arouse two kinds of emotional set or mood; namely, those of sorrow or dejection and of joy or jubilation. In the first experiment three kinds of learning material were employed—letter-digit substitution, poetry, and monosyllabic words. In the second experiment, three types of words were used, which differed in each case in affective tone. The author draws the following tentative conclusions from the data: (1) When using a story as a means of arousing a set of joy or sorrow, the best learning is obtained under the normal condition for the three kinds of learning material. No definite statements may be made with respect to the relative influence of the joyful and sad conditions considered alone. (2) With reference to the utilization of pictures as a means of arousing an emotional set, the total scores reveal no significant differences for the three conditions of learning. However, there is a slight indication that the different conditions produce a differential effect upon the kinds of words learned.—H. W. Karn (Clark).

[See also abstracts 812, 966, 977, 1011.]

## NERVOUS SYSTEM

927. Adrian, E. D., & Matthews, B. H. C. Observations on the electrical activity of the cortex. *J. Physiol.*, 1933, 80, 1P-3P.—In rabbits under urethane anesthesia, puncture of the grey matter with an exploring electrode leads to bursts of rhythmic oscillations due to the synchronous activity of many neurons. The features of these bursts are described. It is concluded that the electric changes produced by injury to the cerebral cortex show that there is great uniformity in time relations in the different nervous elements.—M. A. Rubin (Clark).

928. Berry, R. J. A. Brain structure in relation to the mind. *J. Neur. & Psychopath.*, 1932, 13, 97-117.—D. G. Marquis (Yale).

929. Bishop, G. H. Fiber groups in the optic nerve. *Amer. J. Physiol.*, 1933, 106, 460-474.—"The frog optic nerve contains three main groups of fibers differing in conduction rates and other physiological properties. The rabbit optic nerve contains two groups similar to the first two of the frog, and probably a third whose identification is less certain. The fibers whose direct electrical stimulation in rabbits results in action potentials recorded from the optic cortex fall in the range of the first two groups; and it is probable that the activities of these two groups of nerve fibers are specifically related to the two different action potentials recorded from the cortex

at different nerve thresholds. The functional relationships involved in visual activity are the subject of tentative speculation."—C. Landis (N. Y. Psychiatric Institute).

930. Blair, E. A., & Erlanger, J. A comparison of the characteristics of axons through their individual electrical responses. *Amer. J. Physiol.*, 1933, 106, 524-564.—"Individual axons of small nerves of the frog have been identified by their action potentials through the cathode ray oscillograph after amplification up to 2,200,000 times and their properties determined. To brief threshold shocks an axon responds with a latency that shifts spontaneously from a maximum of about  $0.5\sigma$  in the case of the fastest fibers to over  $2.4\sigma$  in slower fibers. The shift diminishes as shock strength increases and the response is stabilized at a latency, plus utilization period, of  $0.06$  to  $0.1\sigma$ . A greater shift is observed in the case of fibers stimulated by a threshold constant current. The irritability of axons also varies spontaneously through a narrow range; presumably this and the latency variations are an expression of spontaneous alterations in reactivity. The thresholds of individual axons, measured by induction shocks and condenser charges, increase as conduction rate decreases. The chronaxies, as conduction rate diminishes, fall uniformly from  $0.3$  to about  $0.2\sigma$  at conduction rates of about 10 m.p.s., and then rapidly increase. The curve differs wholly from other irritability curves. The curves expressing the relation of current strength to current duration for individual axons form a continuous series, the slower the fiber the further from the axis is its curve. The summation interval of a fiber fluctuates somewhat, but in different fibers shortens as the conduction rate slows, down to 2 m.p.s., and then lengthens rapidly. The summation interval of nerve does not seem to be a measure of the speed with which the excitatory process subsides. The recorded amplitude of the potential of axons diminishes as their conduction rates. The relation seems to be linear, but the variations are wide. The time to maximum of the spike increases as conduction rate slows. The difficulties in the way of correlating the above two values are considered, and some exceptional configurations of axon spikes are described. It is pointed out that if the relation of the recorded spike height to conduction is linear the conduction rate in a fiber, granting certain assumptions, must vary as the square of its diameter. By the measures that have been applied the properties of nerve fibers have been found to vary in a perfectly continuous manner from one end of the conduction range to the other. If there are fiber types they cannot be differentiated by their axon potentials. Consideration is given to the bearing of these results on the interpretation of the significance of the elevations appearing on the conducted action potentials of nerves."—C. Landis (N. Y. Psychiatric Institute).

931. Bolton, J. S. The cortical localisation of cerebral function. Edinburgh: Oliver & Boyd, 1933. Pp. 23. 6d.—This is No. 12 of the Henderson Trust lectures delivered in the University of Edinburgh.

The mammalian cerebral cortex is treated as a special brain structure evolved for the purpose of carrying out skilled motor activity. The lower animals respond to immediate sensory stimuli only; man responds also to "intra-cerebral pseudo-sensory stimulation." "The pre-Rolandic region of the brain is the part concerned with attention, volition, and the complicated motor activity based primarily on individual educability. The essentially human fronto-marginal fissural system is the physical expression of volition. The rest of the pre-Rolandic cortex of man serves as the physical basis for the evolution, grouping and performance" of extremely complex skilled motor activities. The post-Rolandic cortex is sensory-receptive and sensory-elaborative. The pre-frontal cortex, being late in the order of development, is both enormously complex and relatively unstable. The lecture is illustrated by many diagrams and plates.—F. C. Bartlett (Cambridge, England).

932. Brinley, F. J. A possibility of a sympathetic innervation of the fish heart. *Proc. Soc. Exper. Biol. & Med.*, 1933, 31, 122-124.—This paper is concerned with the action of adrenalin on *Fundulus heteroclitus* embryos. In embryos 4 to 7 days old no change in rate or rhythm of the heart follows the injection, indicating that adrenalin has no visible effect on the rate of contraction of the embryonic cardiac muscle. In embryos 8 to 13 days old, the heart stops for several seconds after injection, then increases 10 to 20% above the rate prior to injection. Experimentation with nicotine, which caused no marked action, led to the conclusion that the acceleration in rate after adrenalin injection is due to stimulation of the accelerator fibers and not to a direct action on cardiac muscle. This seems to indicate that the heart is innervated by augmentor nerves on the 8th day after fertilization.—P. Seckler (Radcliffe).

933. Bucy, P. C. Representation of ipsilateral extremities in the cerebral cortex. *Science*, 1933, 78, 418.—From experimentation involving electrical stimulation of the cerebral cortex, using *Macaca mulatta* monkeys and a few baboons and chimpanzees as subjects, it was concluded that the "ipsilateral area" was sharply localized in the cerebral cortex, that the motor and premotor areas of the cortex of primates are capable of integrating movement in the ipsilateral extremities, and that in monkeys the area most excitable, electrically, for ipsilateral responses lies about the superior precentral sulcus in the premotor cortex. Ablation experiments were in agreement with the results of stimulation. Clinical evidence in human cases supports the findings in the monkey.—P. Seckler (Radcliffe).

934. Castellino, P. Prolegomeni alla fisiopatologia del sistema nervoso vegetativo. (Prolegomena to the physiopathology of the vegetative nervous system.) *Athena*, 1932, No. 3, 94-104.—The author presents the general concepts of the vegetative nervous system and defends the division between the sympathetic, orthosympathetic, and autonomic portions, as well as the functional and morphological dependence of the vegetative nervous system and the

endocrine system. This latter point is important for the knowledge of the somatic and psychic unity of the organism.—*R. Calabresi* (Rome).

935. Dandy, W. E. Physiological studies following extirpation of the right cerebral hemisphere in man. *Bull. Johns Hopkins Hosp.*, 1933, 53, 31-51.—More complete case reports are given for three patients from whom the right cerebral hemisphere was removed (see II: 1891). One patient survived 26 months, another 6 months. Clinical examination disclosed no mental abnormalities. "Both patients were always perfectly oriented. . . . Their memory for immediate and remote events was unimpaired. They could read, write and compute without error. . . . Both patients were always coherent; at no time were there abnormal fears, delusions, hallucinations, confabulations, expansive ideas or obsessions. Neither was there undue melancholy nor euphoria."—*D. G. Marquis* (Yale).

936. Denny-Brown, D. Theoretical deductions from the physiology of the cerebral cortex. *J. Neur. & Psychopath.*, 1932, 13, 52-67.—A critical review of Pavlov's interpretation of conditioned reflex phenomena. The writer suggests that a more acceptable explanation of external and internal inhibition would be in terms of a shifting of "attentive facilitation," a positive rather than a negative process. For example, the decrement in the conditioned reflex following a distracting stimulus implies merely a shift of attention which withdraws certain facilitation from the conditioned response. The "inhibition of delay" during a trace reflex is similarly explained as a focussing of attention on bodily happenings (as cues in estimating the time interval) with consequent reduction in the attentive facilitation for conditioned responses. Extinction, which Pavlov explains by stating that the stimulus becomes inhibitory, might be regarded as the development of a fresh conditioned response, an association of the stimulus with a lack of a habitual accompaniment. Further discussion is concerned with the mechanism of irradiation, with cortical localization and with sleep.—*D. G. Marquis* (Yale).

937. Dohlman, G., & Betsholtz, T. Om kronaxi-bestämningar på nervus vestibularis. (On chronaxy determinations on the vestibular nerve.) *Hospitalstidende*, 1933, 76, 6-9.—The two authors criticize the method used by Bourguignon in his attempt to measure the chronaxy value of nervus vestibularis, as well as his rather odd results. By the construction of a new apparatus, including also the registration of eye movements and a Jaquet's time-marker, it is found (contrary to earlier results) that the chronaxy value of the vestibular nerve is not much different from that of other nerves, being from .001 to .002 second.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

938. Dusser de Barenne, J. G. The mode and site of action of strychnine in the nervous system. *Physiol. Revs.*, 1933, 3, 325-336.—The author is of the opinion that typical strychnine tetani occur only when the cell bodies (perikarya) in the dorsal horns of the spinal cord are poisoned simultaneously with the

cell bodies of the motor cells in the ventral grey matter of the spinal cord. Strychnine probably acts by augmenting the excitability and conductivity of the various nervous structures involved, resulting in immediate, generalized and synchronized maximal reflex responses to any extraneous stimulus.—*M. A. Rubin* (Clark).

939. Elmqvist, R., & Sjöström, —. Wever och Bray's försök. (Wever and Bray's experiment.) *Hospitalstidende*, 1933, 76, 11-12.—Wever and Bray's original experiment of 1930 in regard to action currents in n. acusticus was demonstrated on a cat before the annual meeting of the Danish Otolaryngological Society. In the discussion, Mygind voiced his doubt about all the "telephone theories" and claimed that hearing in the last analysis must be "modified feeling."—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

940. Feng, T. P., & Hill, A. V. The steady state of heat production in nerve. *Proc. Roy. Soc. London*, 1933, 113B, 356-365.—When a frog's medullated nerve at 20° C. is given stimulation at low or moderate frequency (up to 50 shocks a second) a steady state is reached in 25 to 40 minutes at which recovery keeps pace with breakdown and the rate of heat production becomes constant. When the stimulus is discontinued the rate of heat production returns, in 25 to 40 minutes, to its basal level. At higher frequencies a steady state is impossible. During "fatigue" induced by high frequency a sudden change to a lower frequency may cause an immediate increase in the rate of heat production.—*F. C. Bartlett* (Cambridge, England).

941. Feng, T. P., & Hill, A. V. The effect of frequency of stimulation on the heat production of frog's nerve. *Proc. Roy. Soc. London*, 1933, 113B, 366-385.—After a brief stimulus (16 to 32 secs.) to a completely resting frog's nerve at 20° C., the recovery process is complete in 30 to 35 mins. The ratio of total to initial heat is about 30. When a nerve under continuous stimulation at a relatively low frequency reaches a steady state of heat production, if the stimulus be omitted for a short time (16 secs.) a gap in the heat production occurs. This can be analyzed to provide an estimate of the initial heat during the steady state. The ratio of the total heat to the initial heat so measured is about 9. A nerve in a steady state may be stimulated to increased activity by increasing the frequency of stimulation for a short time. The ratio of the total to initial heat for the superimposed stimulus may vary from 30 to 7, depending on the level of the basal activity, and being less the greater that activity. The nearer the basal steady condition of a nerve is to one of complete rest the higher is the potential to which it is restored during recovery, and the greater is the amount of energy used in its restoration. It is unlikely that the initial and recovery processes are directly coupled.—*F. C. Bartlett* (Cambridge, England).

942. Franz, S. I. Inadequacy of the concept of cerebral dominance in relation to sensory process.

*Psychol. Bull.*, 1933, 30, 599.—Abstract.—J. F. Dashiell (North Carolina).

943. Gerard, R. W. Nerve metabolism. *Physiol. Revs.*, 1932, 12, 469-593.—A very complete summary of all the literature bearing on nerve metabolism up to date with copious citations.—M. A. Rubin (Clark).

944. Herrick, C. J. Morphogenesis of the brain. *J. Morph.*, 1933, 54, 233-258.—Correlating the evidence from comparative morphology and from experimental embryology, the author discusses the development of the cerebral cortex, with particular reference to the pallial primordia of the amphibian brain.—D. G. Marquis (Yale).

945. Herrick, C. J. The evolution of cerebral localization patterns. *Science*, 1933, 78, 439-444.—A phylogenetic approach to the problem of localization of functions within the brain. The conclusion is drawn that no single formula of cerebral localization of function can be written. "Each type of performance has its own anatomical pattern which must be discovered by patient research. For some types of function there are no local organs with stable or rigid arrangements of neurons, for these organismic or totalizing activities are general in their reach and fluid in their character. Yet the tissues which perform them are not structurally homogeneous or physiologically equipotential. In these integrating functions the amount of tissue activated is a factor in the situation, as Lashley has shown, but diversification of structure and of pattern of activation is essential, for this is the apparatus of our mental life in both its analytic (sensory) and its synthetic (rational) aspects." The author believes that the anatomist, physiologist, psychologist and clinician have made the mistake of viewing the problem of localization of function each from his own angle and in the light of his own experience, with the result that his general conclusions are derived only from the meager data visible to him within his own contracted horizon.—H. W. Karn (Clark).

946. Hill, A. V. The three phases of nerve heat production. *Proc. Roy. Soc. London*, 1933, 113B, 345-355.—The process of activity in frog's medullated nerve occurs in at least three phases: (1) the liberation of initial heat, which either coincides with or immediately follows the actual transmission of the impulse; (2) a rapid recovery process, and (3) a slow recovery process. The total heat liberated in the rapid recovery process is about equal to the initial heat; that in the slow recovery process is many times greater. The initial heat rate may diminish quickly during stimulation, particularly at a high frequency or a low temperature.—F. C. Bartlett (Cambridge, England).

947. Hoffman, P., Loewenbach, H., & Schneider, M. Über die Isolation nervöser Erregungen im Zentralnervensystem. (On the isolation of nervous excitation in the central nervous system.) *Zsch. f. Biol.*, 1921, 92, 89-94.—(*Biol. Abst.* VII: 18395).

948. Lashley, K. S. Integrative functions of the cerebral cortex. *Physiol. Revs.*, 1933, 13, 1-43.—Literature on this subject is reviewed and discussed.

The author stresses the following points: (1) mutual dependence of parts in which the specialization of structures seems less important than the mere mass of functional tissue; (2) there are indications that within the entire cortex for certain functions, and within specialized areas for others, the subordinate parts are all equally capable of performing the functions of the whole; (3) even where the highest degree of specialization occurs, the facts of equivalence of stimuli or of motor responses preclude any narrowly localized specialization of intercellular connections.—M. A. Rubin (Clark).

949. Marquis, D. G. The encephalization of visual function. *Psychol. Bull.*, 1933, 30, 560.—Abstract.—J. F. Dashiell (North Carolina).

950. Mintz, A. A study of indications of unstable, unilateral cerebral dominance, reading disability and mental deficiency. *Psychol. Bull.*, 1933, 30, 565-566.—Abstract.—J. F. Dashiell (North Carolina).

951. Rosenblueth, A., & Rioch, D. McK. Temporal and spatial summation in autonomic systems. *Amer. J. Physiol.*, 1933, 106, 365-380.—"Isotonic and isometric contractions of the nictitating membrane, heart-rate inhibition and isometric contractions of skeletal muscle, at varying frequencies of maximal stimulation before and after severance of a fraction of the nerve supply, were recorded from cats. The analysis of the curves thus obtained leads to the following conclusions. Smooth muscle, unlike skeletal muscle, is not organized as motor units. In smooth muscle any nerve fiber of the motor supply can cause contraction of all the cells, within certain limitations. Smooth muscle does not follow the all-or-none principle. The differences between skeletal and smooth muscle are explained by a free diffusion throughout the latter of a chemical mediator liberated by the nerve impulses. This theory adequately covers other autonomic systems. The responses of autonomic systems are a function of the number of nerve impulses delivered per unit time, regardless of the number of nerve fibers involved, unlike skeletal muscle. A given destruction of the nerve supply impairs the responses of smooth muscle less than those of skeletal muscle. The fraction of autonomic nerve fibers activated by a given stimulus can be determined from the response. Fatigue in smooth muscle probably affects first the contractile system, not the myoneural junction. The possibility of a chemical mediation in skeletal muscle is discussed. The relations between frequency of stimulation, number of nerve fibers activated, and response are analyzed mathematically both for smooth and skeletal muscle."—C. Landis (N. Y. Psychiatric Institute).

952. Thorne, F. C. Criticisms of the psychological use of chronaxie. *Psychol. Bull.*, 1933, 30, 564.—Abstract.—J. F. Dashiell (North Carolina).

953. Tullio, P., & Di Bella, L. Sopra un singolare fenomeno di eccitazione neuro-muscolare. (Concerning a singular phenomenon of neuro-muscular excitation.) *Boll. Soc. ital. biol. sper.*, 1932, No. 4, 290-291.—The authors report observations upon a spinal frog

and some experiments upon the stimulation which provokes a strong tetanic contraction.—*R. Calabresi* (Rome).

[See also abstracts 816, 839, 898, 968, 979, 990, 1030, 1041, 1046, 1049, 1063, 1131, 1203.]

## MOTOR PHENOMENA AND ACTION

954. Altenburger, H., & Kroll, F. W. *Humorale Beeinflussung cerebrosptinaler Reflexvorgänge.* (Humoral influence of the cerebrospinal reflex processes.) *Zsch. f. ges. Neur. u. Psychiat.*, 1931, 136, 39-46.—(*Biol. Abst.* VII: 18387).

955. Arkhangelskii, V. M. *Vysshaya slozhno-nervnaya deyatel'nost zhivotnykh pri otositel'nom kolichestvennom golodanii.* (Complex higher nervous activity of underfed animals.) *Zh. eksper. biol. i. med.*, 1929, 13, 5-13.—Underfeeding (a balanced diet, but limited in quantity) which was accompanied by a significant loss of weight led to marked disturbances in the cerebral activities of dogs. The excitatory processes were first affected. With progressive loss of weight conditioned reflexes (C.R.) could not be established, and those previously formed disappeared or became weak and unstable. With interrupted, wavelike loss of weight the C.R. increased during some periods of the low diet, disappearing (or at least becoming markedly reduced) during the periods of maximal loss of weight. This increase in C.R. was always accompanied by a marked exhaustion of the central nervous system, thus indicating a lower excitability. In dogs of the "inhibitory" type excitability was affected more by the hunger than in "excitable" dogs. During continuous loss of weight, differentiations and conditioned inhibitions either disappeared or were markedly disturbed, the dogs of the "excitable" type being more affected. During interrupted loss of weight the inhibitory processes were disturbed but did not disappear completely. German summary.—(*Biol. Abst.* VII: 18388).

956. Baliassnikowa, N. J., & Model, M. M. *Zur Neurologie des Saugens.* (Concerning the neurology of the sucking response.) *Zsch. f. Kinderforsch.*, 1931-32, 39, 1-16.—Observation of the first nursing of 117 newborn and premature infants reveals four types: (1) no sucking responses, (2) weak, (3) normal, (4) active. The sucking response is a chain reflex compounded of search or orientation reflexes, the sucking act, and swallowing. It is one of the dominant activities of the organism, supplanting the involuntary general choreoathetotic movements. Stimulations by visual, auditory, thermal, pressure, gustatory, olfactory stimuli either facilitate or inhibit the sucking response. Pain stimuli are ineffective. Concomitant activity of the vegetative nervous system is demonstrated in the digestive system by the excretion of meconium upon initiation of sucking, in the circulatory system by alteration of pulse rate and flushing of face, in the urogenital system by erection of the penis of male infants during the nursing period. The literature regarding the center for the response is reviewed.—*K. C. Pratt* (Michigan Central State Teachers College).

957. Beck, L. F. *Motor skill and handedness.* *Psychol. Bull.*, 1933, 30, 560-561.—Abstract.—*J. F. Dashiell* (North Carolina).

958. Bellelli, C. *Recenti vedute sull' influenza dell' organo dell' udito sull' equilibrio endocrino.* (Recent theories concerning the influence of the ear on endocrine equilibrium.) *Giorn. di med. milit.*, 1932, fasc. 8, 700-702.—*R. Calabresi* (Rome).

959. Carboguin, G. *Nuovo metodo di ricerca del riflesso patellare.* (A new method of investigating the patellar reflex.) *Gazz. osp. e clin.*, 1932, No. 49, 1540-1543.—Studies made in a condition of half-sleep.—*R. Calabresi* (Rome).

960. Caronell, V. A. *Fatica muscolare e campo visivo per i colori.* (Muscular fatigue and the visual field for color.) *Arch. di fisiol.*, 1932, 31, 261-265.—The author finds an inverse relation between the effects of muscular fatigue upon the perception of each color and the extent of its visual field.—*R. Calabresi* (Rome).

961. Casella, B. *Tempi di reazione dopo l'eccitamento labirintico, misurati con l'apparecchio Costanzi.* (Reaction time after labyrinthine stimulation, measured with the apparatus of Costanzi.) *Racc. pubbl. Sci. Ist. Med.-leg. Aeronaut.*, 1932, 4, 11-18.—The reaction time of pilots after labyrinthine stimulation by rotation was always shorter than before rotation.—*R. Calabresi* (Rome).

962. Cason, H., & Katcher, N. *An attempt to condition breathing and eyelid responses to a subliminal electric stimulus.* *J. Exper. Psychol.*, 1933, 16, 831-842.—Using a variety of experimental procedures, the authors were unable in every case to condition breathing or eyelid responses to a subliminal electric shock. Several suggestions on procedure are given which, the authors believe, have a greater probability of giving positive results than the methods employed in the present experiment.—*H. W. Karn* (Clark).

963. Cocchi, A. *L'influenza della tiroide sull' istinto materno.* (The influence of the thyroid on the maternal instinct.) *Boll. soc. ital. biol. sper.*, 1932, No. 9, 1333-1334.—The thyroid in small quantities is a stimulant to all the organs and in particular to the sex organs, which are antagonistic to the maternal instinct.—*R. Calabresi* (Rome).

964. Demoll, R. *Instinkt und Entwicklung.* (Instinct and development.) München: J. F. Lehmann, 1933. Pp. 80.—*R. R. Willoughby* (Clark).

965. Dunlap, S. C. *Vocational modification of the knee-jerk.* *Psychol. Bull.*, 1933, 30, 609.—Abstract.—*J. F. Dashiell* (North Carolina).

966. Fauville, A. *L'associationnisme moderne.* (Modern associationism.) *Rev. néo-scol.*, 1933, 35, 37-55.—The author wishes to show how the associationist doctrine is presented by modern psychologists; he explains succinctly the methods employed and the experiments completed in the study of learning in animals and man, particularly those of Hunter, Hamilton, Yerkes, and Thorndike, and he synthesizes the conclusions of these experiments in these terms:

learning is a homogeneous and quantitative function when it is examined objectively and simply from without; learning does not take place mechanically, but results from a state of consciousness; it is produced by its conscious result.—R. Nihard (Liège).

967. Fearing, F., & Mowrer, O. H. The effect of anaesthesia upon the experimental extinction of certain vestibular reflexes. *Psychol. Bull.*, 1933, 30, 618.—Abstract.—J. F. Dashiell (North Carolina).

968. Foley, J. P., Jr. The cortical interpretation of conditioning. *J. Gen. Psychol.*, 1933, 9, 228-234.—Pavlov's assertion that the cortex is essential to the conditioning process is questioned. Conditioned responses are readily produced in embryonic organisms in which neopallid maturation has not yet occurred, and conditioned responses are obtained in lower organisms which have no cortex or differentiated nervous system whatever. An experiment is described which is designed to test Pavlov's hypothesis further.—H. Cason (Wisconsin).

969. Frei, J. Über die physiologische und pathologische Bedeutung des Abdominalreflexes. (Concerning the significance in physiology and pathology of abdominal reflexes.) Univ. Basel: Dissertation, 1929. Pp. 23.—A review of the literature with the author's own 100 tests in neurological diseases with spastic symptoms. In 84 cases in which the Babinski sign was positive, the abdominal reflexes were absent or diminished. The theory is supported that the reflex arc leads over the 7-12th dorsal roots toward spinal and cortical centers. Therefore the abdominal reflexes are abolished unilaterally in hemiplegia. Their early disappearance is helpful in the diagnosis of disseminated sclerosis and in disease of abdominal organs, as acute appendicitis and acute peritonitis in women.—(*Biol. Abst.* VII: 18394).

970. Galeone, N. Il comportamento dei riflessi labirintici nei piloti aviatori. (Labyrinth reflexes of pilot aviators.) *Racc. pubbl. Sci. Ist. Med.-leg. Aeronaut.*, 1932, 4, 3-28.—The tests on vestibular excitability fall into two groups, tests to measure the excitability of the otolith apparatus and tests to study the excitability of the semicircular canals.—R. Calabresi (Rome).

971. Gaskill, H. V. A method for obtaining small samples of saliva. *J. Gen. Psychol.*, 1933, 9, 254-255.—The method was employed in connection with a study of the hydrogen-ion concentration of the saliva.—H. Cason (Wisconsin).

972. Gaskill, H. V. A method for preserving small samples of saliva for subsequent pH determination. *J. Gen. Psychol.*, 1933, 9, 256-257.—H. Cason (Wisconsin).

973. Gayda, T. Il tempo riflesso nel fenomeno del giuocchio dell'uomo. (The time reflex in the human knee.) *Arch. di fisiol.*, 1932, 31, 481-499.—With a special apparatus the author has found the time reflex smaller on the left with right-handed subjects and vice versa. An increase in the intensity of stimulation as well as the procedure of Gendrassik causes the time reflex to diminish and augments the size of the reflex

movement in the knee phenomenon.—R. Calabresi (Rome).

974. Granit, R. Nobelpriset i fysiologi och medicin för 1932. (The 1932 Nobel prize in physiology and medicine.) *Finsk. läk. handl.*, 1933, 75, 164-168.—The Nobel prize in physiology and medicine for 1932 was conferred upon Charles Scott Sherrington and Edgar Douglas Adrian. The present article is a brief review of the work and main contributions of both men.—M. L. Reymert (Mooseheart Laboratory for Child Research).

975. Greene, E. B. The effect of practice on growth curves. *Psychol. Bull.*, 1933, 30, 578.—Abstract.—J. F. Dashiell (North Carolina).

976. Gualco, S. Sui tre indici biometrici di femminilità somatica secondo Pende. (On the three biometric indices of somatic femininity according to Pende.) *Accad. med., Genova*, 1932, No. 11, 370.—R. Calabresi (Rome).

977. Hall, C. A repetition of Thorndike's experiment on improvement in the estimation of lengths. *J. Gen. Psychol.*, 1933, 9, 238-241.—Data are given which contradict those previously reported by Thorndike on estimating the length of lines.—H. Cason (Wisconsin).

978. Hall, V. E., Field, J., 2nd, Sahyun, M., Cutting, W. C., & Tainter, M. L. Carbohydrate metabolism, respiration and circulation in animals with basal metabolism heightened by dinitrophenol. *Amer. J. Physiol.*, 1933, 106, 432-440.—"Administration of dinitrophenol, by accelerating tissue metabolism, provokes an increase in oxygen consumption which may amount to over ten times the resting rate. The body temperature rise which follows the increase in oxygen consumption is secondary to the acceleration in metabolism. During the action of the drug, pronounced decreases occur in liver and muscle glycogen, while blood sugar and lactates and muscle lactates tend to rise. The total carbohydrate disappearing, however, accounts for less than half of the oxygen consumption. The principal fuel of the accelerated metabolism must therefore be other than carbohydrate. The increased oxygen consumed is carried to the tissues by means both of an increased minute volume of circulating blood and of a greater arteriovenous oxygen difference. Both respiratory rate and tidal air are increased. The respiratory stimulation is out of proportion to increase in oxygen consumption, and is correlated rather with the degree of hyperthermia developed. Dinitrophenol is well adapted to the experimental study of the various responses of organisms to conditions of accelerated tissue metabolism."—C. Landis (N. Y. Psychiatric Institute).

979. Halstead, W. C., & Fearing, F. The incidence of central degeneration following labyrinthectomy with reference to the variability of behavior symptoms. *Psychol. Bull.*, 1933, 30, 581.—Abstract.—J. F. Dashiell (North Carolina).

980. Hathaway, S. R. The coordination of quick voluntary reactions. *Psychol. Bull.*, 1933, 30, 579.—Abstract.—J. F. Dashiell (North Carolina).

981. Heiser, F. Diurnal rhythms in skin temperature. *Psychol. Bull.*, 1933, 30, 562-563.—Abstract.—J. F. Dashiell (North Carolina).
982. Henderson, V. E., & Roepke, M. H. On the mechanism of erection. *Amer. J. Physiol.*, 1933, 106, 441-448.—"Evidence is presented that the vasodilatation on stimulating the dilator nerves to the penis is due to a local hormonal mechanism. The evidence is not such as to show whether this is due to an acetylcholine-like mechanism or not. Evidence is presented to show that erection is not due to a compression of the efferent veins by skeletal muscle action. A suggestion is made that skeletal, ischio-cavernosus, muscular contractions may play some minor part in erection. Evidence is presented that there is a rapid rise of pressure during erection within the corpora cavernosa, which may well make the venous outflow inefficient."—C. Landis (N. Y. Psychiatric Institute).
983. Hilgard, E. R. Modification of reflexes and conditioned reactions. *J. Gen. Psychol.*, 1933, 9, 210-215.—A further treatment of data previously obtained on the conditioned eyelid reaction.—H. Cason (Wisconsin).
984. Hill, A. V. The revolution in muscle physiology. *Physiol. Revs.*, 1932, 12, 56-68.—M. A. Rubin (Clark).
985. Hsiao, H. H. A study of four kinds of abilities of hand movement. *Chung Hwa Educ. Rev.* (Chinese), 1933, 21, No. 35-46.—The purpose of this investigation was to study the development of the four kinds of abilities of hand movement. Four different double-lined figures were used as test material. 268 pupils of the Experimental School of the Central University, Nanking, served as subjects, whose ages ranged from 6 to 14 years, with decreasing numbers after the age of 10. Children of each age were divided into four sections, A, B, C and D, the number being equal. The order of tests was so arranged as to compensate for the practice effect. The subjects were required to trace between the two lines of each of the four figures. The line traced should not touch the two border lines and should be drawn from one end to the other. The results showed that curved movements were easier than horizontal-and-vertical movements, as shown by a comparison of Sections A and B and Sections C and D, and that regular movements were easier than irregular ones, as shown by a comparison of Sections A and C and Sections B and D. Although the lengths of the four kinds of double lines varied slightly, some of these differences were, however, inversely proportional to the difference of errors and some others directly proportional to the difference of time. Concerning the relationship between age and the four kinds of hand movements, it was found that between the ages of 6 and 12 years both speed and accuracy of the movement were proportional to the age, while over the age of 12 the phenomena were not clear due to the small number of subjects tested for these ages.—C.-F. Wu (Nat. Res. Instit. Psychol., Shanghai).
986. Ishijima, F. Studien über die Sehnenreflexe. Über die fundamentalen physiologischen Einflüsse auf den Kniesehnenreflex. (Studies on the tendon reflexes. On the basic physiological influences on the knee tendon reflex.) *Mitt. Med. Ges. Tokio*, 1930, 44, 420-436.—The author studied the fundamental physiological influences on the tendon reflex of the quadriceps preparation, using both decerebrate and spinal cats. Graphic records indicate two components in the knee jerk. Both components are present in the spinal preparation, but the second is intensified in the decerebrate animal. True clonus is almost exclusively a decerebrate characteristic. In the decerebrate preparation both components increase simultaneously with increasing intensity of stimulus until a maximal value is reached. In the spinal preparation, the stimulation threshold value is lower and the secondary component more quickly attains its maximal value. The threshold of excitability is largely independent of muscle loading, but the amplitude of the response is dependent on the amount of loading. This influences the primary component most markedly in the decerebrate animal and the secondary component in the spinal animal. The contraction waves of clonus are intimately related to the factor of muscle length. The author believes that in the critical study of tendon reflex irritability, greater significance attaches to the threshold value, to intensity of stimulation and the magnitude of the primary component, than to the size of the secondary component and the clonus.—(Biol. Abst. VII: 18397).
987. Kempný, L. Přispěvek k introspektivně analytickému popisu instinktivního procesu. (Contribution to the introspective and analytical description of the instinctive process.) *Kwart. psychol.*, 1933, 4, 33-40.—In the analysis of instinctive reactions, external aspects (stimuli, situations) as well as internal aspects (ways in which the subject experiences instincts) have to be considered because they stand in mutual dependence upon each other.—T. M. Abel (Sarah Lawrence).
988. Langhorne, M. C. Age and sex differences in pursuitmeter learning. *Psychol. Bull.*, 1933, 30, 623-624.—Abstract.—J. F. Dashiell (North Carolina).
989. Lanier, L. H., & Leedy, J. L. Speed of reaction in relation to basal metabolism and blood pressure. *Psychol. Bull.*, 1933, 30, 609-610.—Abstract.—J. F. Dashiell (North Carolina).
990. Machol, H. Über die Einwirkung von Lecithin auf die durch Sympathicusreizung hervorgerufene Pupillenerweiterung. (The influence of lecithin on pupil widening called forth by the stimulation of the sympathetic.) 1933. Pp. 16.—R. R. Willoughby (Clark).
991. MacKenzie, C. The action of muscles: including muscle rest and muscle re-education. (2nd ed.) London: H. K. Lewis, 1930. Pp. xvi + 288.—(Biol. Abst. VII: 18425).
992. Manzer, C. W. Relationship between variability and output in muscular work. *Psychol. Bull.*, 1933, 30, 544-545.—Abstract.—J. F. Dashiell (North Carolina).
993. McFarland, R. A., & Barach, A. L. The relationship between oxygen want and alcoholic intoxication.

tion. *Psychol. Bull.*, 1933, 30, 561-562.—Abstract.—J. F. Dashiell (North Carolina).

994. McKinney, F. The retention of interrupted maze performance. *Psychol. Bull.*, 1933, 30, 573-574.—Abstract.—J. F. Dashiell (North Carolina).

995. Misbach, L. E. Modification of the knee-jerk by a concomitant voluntary reaction. *Psychol. Bull.*, 1933, 30, 579.—Abstract.—J. F. Dashiell (North Carolina).

996. Mochizuki, M. Einige Beobachtungen über den Appetit. (Some observations on appetite.) *Jap. J. Psychol.*, 1933, 8, 589-621.—With German abstract.—R. R. Willoughby (Clark).

997. Petersen, W. F. Constitution and disease. *Physiol. Revs.*, 1932, 12, 283-309.—In psychoses we deal with purely endogenous factors, the extreme variants having been definitely associated—the slender and the broad individual with Kraepelin's two fundamentally distinct psychoses, the schizophrenic and the manic-depressive. The author concludes that fundamental differences in the hormonal and chemical constitution of the individual find expression not only in pathological but in physiological and psychic reactions of the utmost importance.—M. A. Rubin (Clark).

998. Pushkareva, E. Z., & Belyavskaya, E. A. K fiziologii slyunootdelitel'nogo tsentra. (The physiology of the salivary secretion center.) *Zh. eksper. biol. i. med.*, 1929, 13, 37-42.—Cutting through the brain of dogs below the medulla oblongata produced a continuous excitation of the salivary center with continuous "spontaneous" salivary secretion which was definitely related to the blood pressure, not appearing during hemorrhage (from the vertebral artery) nor taking place after the blood pressure fell to a certain level. The saliva spontaneously secreted had a lower viscosity and solids than the saliva from a "reflex" secretion. Narcosis (chloroform) by itself produced immediate excitation of the salivary center with subsequent inhibition, while pain alone (without narcosis) either had no effect or produced a discontinuous salivation ceasing as soon as the operation was discontinued. When the spontaneous secretion ceased, asphyxia might renew it. During abundant spontaneous secretion, reflexes from the n. lingualis and n. laryngei super. not only failed to produce positive effects but even inhibited the flow, the same reflexes being very effective when the spontaneous secretion was weak or absent. Injection of  $\text{CaCl}_2$  increased spontaneous secretion and in its absence markedly increased the reflexes. Injection of morphine inhibited both the spontaneous and reflex secretions.—(*Biol. Abst.* VII: 18407).

999. Rexroad, C. N. An examination of conditioned reflex theory. *Psychol. Rev.*, 1933, 40, 457-466.—Criticism leveled at the conditioned reflex theory apply only to the conventional textbook interpretations of the conditioned reflex, and not to the concept as Pavlov used it. A conditioned response is not definable as one which is evoked by a stimulus originally incapable of evoking it. It only resembles the

original one; it cannot be developed without the proper motivation; and its supposed instability (experimental extinction) is not a peculiarity, for it will be stable as long as the motivation is constant, and as long as it is appropriate to the sequence of stimulation which follows it.—A. G. Bills (Chicago).

1000. Sgarbi, G. Studio dei riflessi psico-motore. (A study of the psycho-motor reflex.) *Racc. pubbl. sci. inst. med. aeronaut.* (Ist. "Giuseppe Gradenigo"), 1932, 4, 73-87.—After a general exposition of the psycho-motor reaction and an analysis of the psycho-motor reflex, the author treats individual variations with reference to constitutional types and discusses methodology and the topic of emotion as a psychosynesthetic reaction.—R. Calabresi (Rome).

1001. Shipley, W. C. An apparent transfer of conditioning. *Psychol. Bull.*, 1933, 30, 541.—Abstract.—J. F. Dashiell (North Carolina).

1002. Silverman, A., & Baker, L. An attempt to condition various responses to a subliminal electric shock. *Psychol. Bull.*, 1933, 30, 580.—Abstract.—J. F. Dashiell (North Carolina).

1003. Solandt, O. M., & Ridout, J. H. The duration of the recovery period following strenuous muscular exercise. *Proc. Roy. Soc. London*, 1933, 113B, 327-344.—The basis of determination of recovery is taken to be set by the normal range of variation of the basal oxygen intake and carbon dioxide output. Three subjects were observed. 30 to 45 seconds of strenuous muscular exercise was imposed. One subject showed complete recovery in less than 1½ hours. The other two showed a slight but prolonged increase in the resting oxygen consumption after exercise. If it is assumed that this rise was due to some factor other than the recovery process, all the subjects showed complete recovery in less than 1½ hours. The respiratory quotient of the excess metabolism due to strenuous exercise of short duration is over unity when it is determined by the methods indicated in this paper.—F. C. Bartlett (Cambridge, England).

1004. Steinhaus, A. H. Chronic effects of exercise. *Physiol. Revs.*, 1933, 13, 103-148.—The effects of exercise on muscle size, strength, and endurance, as well as on other organs, is described.—M. A. Rubin (Clark).

1005. Switzer, S. C. A. Disinhibition of the conditioned galvanic skin response. *J. Gen. Psychol.*, 1933, 9, 77-100.—A conditioned galvanic skin response to a previously neutral visual stimulus (faint light) was established in 10 S's, and a tetanizing faradic shock was used as the unconditioned stimulus. A study was made of Pavlov's principles of experimental extinction, disinhibitory after-effect and its duration, and spontaneous recovery of the original conditioned reflex.—H. Cason (Wisconsin).

1006. Tullio, P., & Rizzo-Borghese, C. Tecnica dei riflessi sonori. Le sorgenti sonore e il metodo di ottenere i riflessi sonori. (Technique of the auditory reflexes. Auditory sources and methods for obtaining auditory reflexes.) *Boll. Soc. ital. biol. sper.*, 1932,

fasc. 4, 294.—Experiments made on pigeons.—R. Calabresi (Rome).

1007. Viteles, M. S. The measurement of motor ability. *Psychol. Bull.*, 1933, 30, 569.—Abstract.—J. F. Dashiell (North Carolina).

1008. Wendt, G. R. Types of conditioned reactions. *Psychol. Bull.*, 1933, 30, 563.—Abstract.—J. F. Dashiell (North Carolina).

1009. Wenrick, J. E. The conundrum of the conditioned response. *Psychol. Rev.*, 1933, 40, 549-559.—There are three possible time relations between the presentation of conditioned and unconditioned stimuli, "simultaneous," "forward" and "backward" conditioning. What is their relative efficiency? A comprehensive survey of the experimental literature on the conditioned reflex shows widely varying and inconsistent results. This is due to the many inadequately controlled variables involved, as kind of organism, kind of reflex used, conditioned or unconditioned stimuli, intensities and qualities of the components and their variability during the experiment, fatigue, age, and individual differences, as well as differences in refractory period of neuromuscular mechanisms involved. No adequate generalized statement concerning temporal relationships in the establishment of a conditioned reflex is justified at present.—A. G. Bills (Chicago).

1010. Whitehouse, A. G. R., & Ramage, H. The permeability of human skin to electrolytes. *Proc. Roy. Soc. London*, 1933, 113B, 42-48.—Describes experiments which demonstrate that the intact human skin is completely impenetrable to electrolytes in simple solution.—F. C. Bartlett (Cambridge, England).

1011. Winter, J. E. A comparison of the cardiopneumo-psychogram and association methods in the detection of lying in cases of theft among college students. *Psychol. Bull.*, 1933, 30, 609.—Abstract.—J. F. Dashiell (North Carolina).

1012. Young, P. T. The mechanism of organic set. *Psychol. Bull.*, 1933, 30, 587-588.—Abstract.—J. F. Dashiell (North Carolina).

1013. Yugelevski, A. [The physical and physiological factors of the cerebrospinal fluid pressure.] *Sovet. neuropatol.*, 1932, 1, 500-523.—After giving a brief survey of the literature author describes his own experiments, which show that the affect state has a definite influence upon the cerebrospinal fluid pressure.—A. Yarmolenko (Leningrad).

[See also abstracts 756, 816, 852, 866, 890, 898, 900, 905, 911, 920, 923, 952, 953, 1041, 1050, 1058, 1078, 1137, 1154, 1166, 1262, 1289, 1398, 1413.]

#### PLANT AND ANIMAL BEHAVIOR

1014. Alexander, H. G. The effect of severe weather on bird song. *Brit. Birds*, 1931, 25, 17-101.—(*Biol. Abst.* VII: 20130).

1015. Angulo y Gonzalez, A. W. Development of somatic action in the albino rat fetuses. *Proc. Soc.*

*Exper. Biol. & Med.*, 1933, 31, 111-112.—Observations indicate that there are 3 phases in the development of somatic activity in albino rat fetuses. The movements of the first phase are probably myogenic in nature; the second phase seems to be purely neuro-motor; and the third phase is sensory-motor, or reflex activity. In regard to latent period, despite crudeness of method the following ideas are offered: the latent period increases in a cephalo-caudal and proximo-distal direction, and within certain limits it decreases with the age of the fetus and with the strength of stimulation.—P. Seckler (Radcliffe).

1016. Aoki, S. The primary principle of animal learning. *Jap. J. Psychol.*, 1933, 8, 495-521.—R. R. Willoughby (Clark).

1017. Bayroff, A. G. The experimental social behavior of animals. IA. The effect of early isolation of white rats on their later reactions to other white rats as measured by free choices. *Psychol. Bull.*, 1933, 30, 591-592.—Abstract.—J. F. Dashiell (North Carolina).

1018. Bertholf, L. M. Reactions of the honeybee to light. *J. Agric. Res.*, 1931, 42, 379-419.—R. R. Willoughby (Clark).

1019. Blum, H. F. Photodynamic action. *Physiol. Revs.*, 1932, 12, 23-56.—Photodynamic action is due to the sensitization of an organism to light by fluorescent substances. These substances usually are as effective in the dark, but the mechanism is probably different from that of the photodynamic effect. Types of photodynamic effect in vertebrates and invertebrates are enumerated.—M. A. Rubin (Clark).

1020. Bridgen, R. L. The basis of directional orientation. *J. Comp. Psychol.*, 1933, 16, 159-170.—On the basis of data obtained with Dashiell's open-alley maze, the author takes issue with Dashiell's conclusions in his paper on direction orientation in the rat. The following situations were used in the present experiment: a starting place pointing in the direction of the food place, both places being constant throughout the experiment; a constant starting place with limited variation of the food place; a variable starting place and a variable food place; a variable starting place and a constant food place. In these situations the animals gradually decreased time and distance. They learned as well when there was a pointing toward the goal from the entrance as when there was no such pointing. Dashiell's theory is criticized and a dynamic field theory making use of the concept of tensions is offered in its place.—N. L. Munn (Pittsburgh).

1021. Coghill, G. E. Somatic myogenic action in embryos of *Fundulus heteroclitus*. *Proc. Soc. Exper. Biol. & Med.*, 1933, 31, 62-64.—Using a preparation in which myogenic action was distinguished from neurogenic action, five phases in the development of motility in this species can be recognized. Each phase is described in detail, and myogenic and neurogenic action of the myotomes distinguished.—P. Seckler (Radcliffe).

1022. Dennis, W. The order of difficulty of maze alleys. *Psychol. Bull.*, 1933, 30, 616-617.—Abstract.—J. F. Dashiell (North Carolina).
1023. Diamond, S. Fixation of position habits under non-selective conditions. *Psychol. Bull.*, 1933, 30, 549.—Abstract.—J. F. Dashiell (North Carolina).
1024. Dorcus, R. M. The effect of intermittent rotation on orientation in the rat. *Psychol. Bull.*, 1933, 30, 618.—Abstract.—J. F. Dashiell (North Carolina).
1025. Elder, J. H. Audiometric studies with the chimpanzee. *Psychol. Bull.*, 1933, 30, 547-548.—Abstract.—J. F. Dashiell (North Carolina).
1026. Elliott, M. H., & Stavsky, W. H. The effect of an upward stress upon the geotropic orientation of young guinea pigs. *J. Gen. Psychol.*, 1933, 9, 216-220.—A study was made of the relation between the angle of orientation  $\theta$  and the angle of inclination  $\alpha$ .—H. Cason (Wisconsin).
1027. Finch, G., Culler, E. A., & Girden, E. S. Relation of the Wever-Bray effect to auditory acuity in dogs. *Psychol. Bull.*, 1933, 30, 581.—Abstract.—J. F. Dashiell (North Carolina).
1028. Foley, J. P., Jr., & Warden, C. J. The effect of practice on delayed reaction in the rhesus monkey. *Psychol. Bull.*, 1933, 30, 550.—Abstract.—J. F. Dashiell (North Carolina).
1029. Gilhousen, H. C. Retention of excess maze patterns in the white rat. *Psychol. Bull.*, 1933, 30, 592.—Abstract.—J. F. Dashiell (North Carolina).
1030. Gos, M. Le psychisme de la moëlle épinière. (The psychism of the spinal cord.) *Bull. Soc. roy. sci. Liège*, 1932, 4, 95-97.—The results of experiments upon 30 normal and 24 operated frogs tend to show that the medullary nerve centers can suffice to initiate the elementary processes which Verlaïne calls associative memory.—R. Nihard (Liège).
1031. Gray, J. Directional control of fish movement. *Proc. Roy. Soc. London*, 1933, 113B, 115-124.—In all the fish examined (eel, butterfish, rudd, whiting, and goldfish) a change of direction in motion is produced by propagating a very large wave of muscular contraction down the side of the body toward which the fish turns. At first the anterior end of the fish turns on the posterior end, which remains relatively stationary in position. Then the posterior end moves toward the new axis of movement, and during this process the anterior end remains relatively stationary. Except in fish with long and flexible bodies, the caudal fin is of primary importance in turning movements, for it enables the posterior end of the body to act as a fulcrum on which the head can move through the water. A typical pelagic fish can turn through  $180^\circ$  within a circle whose diameter is not greater than the length of the fish.—F. C. Bartlett (Cambridge, England).
1032. Gray, W. L. The effect of forced activity on maze learning and selection of food in white rats. *Psychol. Bull.*, 1933, 30, 615-616.—Abstract.—J. F. Dashiell (North Carolina).
1033. Gundlach, R. H., & Herington, G. B. The problem of relative and absolute transfer of discrimination. *J. Comp. Psychol.*, 1933, 16, 199-206.—The problem of relative versus absolute discrimination raised by the Gestalt psychologists is critically evaluated and some experiments on human subjects are presented. These experiments, according to the authors, show that "the relative 'transfer of discrimination' . . . does not necessarily involve either the 'transposition of structures,' or any vague glimmerings of relational judgments and concepts. It may simply show that the creature has failed again to detect the subtle change introduced by the experimenter; and will continue to fail so long as the subject cannot recognize that the second set of values is different from the first." It is suggested that stimulus values for studies of relational responses should be selected in terms of the threshold so that the subject may recognize them from one presentation to another. Bibliography.—N. L. Munn (Pittsburgh).
1034. Hamilton, J. A., & Krechevsky, I. Studies in the effect of shock upon behavior plasticity in the rat. *J. Comp. Psychol.*, 1933, 16, 237-253.—The authors were interested in the phenomenon of regression. Rats were trained to discriminate between a long and a short alley after emerging from the vertical alley of a T-shaped unit. The short alley was to the left. After the animals had learned to make the left turn, they were given training on a similar apparatus, but with the shorter alley to the right. As soon as there was a well-defined tendency for the left-turning habit to break up and be supplanted by the right-turning habit, an electric shock was given as the animal approached the bifurcation. This "emotional" stimulus led to an immediate fixation of the former habit in 11 out of 18 animals. The variability of response was reduced almost to zero. The authors regard this behavior as similar to that known in abnormal psychology as regression. In another experiment in which shock was introduced before the animals made their first choice and continued thereafter, there was an almost immediate fixation of either a right or left response. The authors say that introduction of shock "precipitates" a certain kind of response and that "when the precipitation is in the direction of the previous well-established behavior . . . such precipitation can be called 'regression.'" Bibliography.—N. L. Munn (Pittsburgh).
1035. Harlow, H. F. The capacity of the monkey in the solution of cross-string problems. *Psychol. Bull.*, 1933, 30, 581.—Abstract.—J. F. Dashiell (North Carolina).
1036. Harlow, H. F., & Yudin, H. C. Social behavior of primates. I. Social facilitation of feeding in the monkey and its relation to attitudes of ascendance and submission. *J. Comp. Psychol.*, 1933, 16, 171-185.—In four experimental situations involving competitive and non-competitive possibilities six macaques showed an increase in the amount of food consumed, this increase being to some extent a function of the degree of competition. Even in the non-competitive situations, however, there was greater

eating activity than under conditions of isolation, indicating facilitation of eating due to non-competitive social stimulation. Although attitudes of ascendance and submission did not appear during these experiments, the authors offer certain general observations which support the conclusion that social attitudes in monkeys arise from conditioning of eating behavior. Bibliography.—N. L. Munn (Pittsburgh).

1037. Herington, G. B., & Gundlach, R. H. How well can guinea pigs and cats hear tones? *J. Comp. Psychol.*, 1933, 16, 287-303.—The controversy concerning tonal sensitivity in lower mammals is critically discussed and a number of discrimination experiments on tonal sensitivity in guinea pigs and cats are reported. An impure tone of 500 d. v. was discriminated from a tone of 1000 d. v. by two guinea pigs. Another guinea pig discriminated between tones of 500 d. v. and 600 d. v. There was some evidence that guinea pigs could discriminate between tones of 591 d. v. and 614 d. v. The results with cats were for the most part negative. One cat, however, learned to approach the side of the apparatus in which 800 d. v. was sounding and to avoid the other side. A cat very soon learned to discriminate brightness in the same apparatus. The authors conclude that "the difficulty met in training rats, cats and similar mammals to discriminate tones is not due primarily to the complexity of the discrimination apparatus, nor to the stupidity of the animals, nor to some peculiar ability to hear tones but not to localize them, but primarily to their inability to hear. Animals may be conditioned to make automatically certain responses to particular kinds of stimuli, but this by no means shows that the animal can make a sensory discrimination. Conditioned reflexes and discriminative reactions probably involve different types of learning." Bibliography.—N. L. Munn (Pittsburgh).

1038. Honzik, C. H. Maze learning in rats in the absence of specific intra- and extra-maze stimuli. *Psychol. Bull.*, 1933, 30, 589-590.—Abstract.—J. F. Dashiell (North Carolina).

1039. Horton, G. P. Preliminary report on the study of the effect of prolonged sound stimulation on the auditory sensitivity of the guinea pig. *Psychol. Bull.*, 1933, 30, 548.—Abstract.—J. F. Dashiell (North Carolina).

1040. Hull, C. L. Differential habituation to internal stimuli in the albino rat. *J. Comp. Psychol.*, 1933, 16, 255-273.—The author points out that "If internal conditions such as hunger and thirst are capable of becoming conditioned in such a way as to evoke ordinary action, albino rats, when all other elements in the stimulus complex are the same, should learn to take one of two alternative paths to a goal box when hungry, and to take the other when thirsty." Four rats motivated by hunger and by thirst on alternative occasions learned this problem, reaching a final accuracy of approximately 95%. Four controls, run with thirst alone, never achieved greater than 50% accuracy. Some of the more important findings were: A brief fore-taste of the reward

increased the accuracy of response. The speed of running was faster in the correct than in the incorrect path. 5 to 55 more reversals of the direction of running occurred in the incorrect than in the correct path. "There is a clear and definite tendency for the frequency of the reversals to be inversely related to the distance traversed before the turn takes place, whether the direction of the partial run is correct or incorrect. This phenomenon seems to harmonize with the hypothesis that the response is being made to an inhibitory stimulus which is operative at the outset of the action sequence." Bibliography.—N. L. Munn (Pittsburgh).

1041. Jacobsen, C. F., & Fulton, J. F. The influence of extirpation of the motor and premotor areas of the cortex upon retention and execution of acquired skilled movements in primates. *Psychol. Bull.*, 1933, 30, 559.—Abstract.—J. F. Dashiell (North Carolina).

1042. Kellogg, W. N., & Kellogg, L. A. Another film of the ape and the child. *Psychol. Bull.*, 1933, 30, 581-582.—Abstract.—J. F. Dashiell (North Carolina).

1043. Kirkman, F. B. Black-headed gull rolling eggs and other objects back into the nest. *Brit. Birds*, 1931, 25, 104-106.—(*Biol. Abst.* VII: 20137).

1044. Koch, A. M., & Warden, C. J. The effects of various diets on maze learning in mice. *Psychol. Bull.*, 1933, 30, 558-559.—Abstract.—J. F. Dashiell (North Carolina).

1045. Marples, G. Experimental studies of the ringed plover. The retrieving, recognition, orientation and rotation of its eggs by the bird. *Brit. Birds*, 1931, 25, 34-44.—(*Biol. Abst.* VII: 20143).

1046. Marshall, C. Lesions in the pyramidal tracts in cats. *Proc. Soc. Exper. Biol. & Med.*, 1933, 31, 68-70.—Using nembutal and sodium amytal as anesthetics, 12 bilateral and 4 unilateral lesions were made in the pyramidal tracts in cats. Observations on posture, placing and hopping, and tone were carried out for varying periods up to 24 days. The assumption of temporary grossly abnormal postures was observed initially in 5 of the 12 bilaterally operated animals, and disappeared in these after a few days. Flexion movements of the feet were absent initially but eventually returned. Hopping reactions, after an initial delay, also returned. Extensor tonus almost always increased initially, but gradually passed to normal. In general, after unilateral operation the contralateral limbs were chiefly, but not exclusively, involved, and also were less disordered than after bilateral operation.—P. Seckler (Radcliffe).

1047. Maslow, A. H. Comparative behavior of primates. VI. Food preferences of primates. *J. Comp. Psychol.*, 1933, 16, 187-196.—When banana, orange, apple, carrot, and bread were presented to 10 primates under controlled conditions they roughly fell into the given order of preference. There was some variation in preference from one animal to another and in the same animal from time to time. The preferential series showed a "serial principle" in all animals. Greater variability was present than

has been observed in rats, pigeons and hens. Bibliography.—N. L. Munn (Pittsburgh).

1048. Morey, R. Dynamogenic effect of sound on activity of rats. *Psychol. Bull.*, 1933, 30, 558.—Abstract.—J. F. Dashiell (North Carolina).

1049. Muskens, L. J. J. Proeven op den achtersten lengtebundel en vorwante hersenstambanen in Teleostiers (goudvissen). (Experiments on the 8th longitudinal bundle and related brain tracts in teleosts (goldfish).) *Psychiat. en Neur. Bladen*, 1930, 5, 540-569.—Extensive series of experimental lesions of the hindbrain of goldfish. Various forced positions and movements were produced. The anatomical results are well illustrated.—(*Biol. Abst.* VII: 18404).

1050. Muskens, L. J. J. Onderzoekingen omtrent dwangbewegingen en hun anatomisch substraat bij vogels. (Researches on forced movements and the anatomical substrate in birds.) *Psychiat. en Neur. Bladen*, 1931, 1, 14-85.—In a long series of experiments, fully described and illustrated, forced movements downwards and forwards were produced only when the fibers between the nucleus intercalatus and the bulb were injured.—(*Biol. Abst.* VII: 18405).

1051. Nissen, H. W., & Elder, J. H. Delayed alternation in raccoons. *Psychol. Bull.*, 1933, 30, 550-551.—Abstract.—J. F. Dashiell (North Carolina).

1052. Noble, R. The varying length of lark song. *Scottish Nat.*, 1931, 188, 47-54.—(*Biol. Abst.* VII: 20145).

1053. Omwake, L. The activity and learning of white rats. *J. Comp. Psychol.*, 1933, 16, 275-285.—Using a rather simple maze of unknown reliability, the author studied the effect of water and food deprivation on maze activity, the criteria being number of errors per minute and per cent of rats reaching the food box in a given time. The differences between groups of animals with different degrees of thirst and different degrees of hunger were, in general, small and inconsistent as to trend, although large groups were used. A correlation of .71 between errors in the maze per minute and rate of learning was obtained. 188 cases were involved. Bibliography.—N. L. Munn (Pittsburgh).

1054. Pattie, F. A., Jr. The social behavior of normal chicks and of chicks hatched and reared in isolation. *Psychol. Bull.*, 1933, 30, 617.—Abstract.—J. F. Dashiell (North Carolina).

1055. Riess, B., Jackson, T. A., & Warden, C. J. Effect of variations in the length of the maze upon the rate of fixation in the chick. *Psychol. Bull.*, 1933, 30, 551.—Abstract.—J. F. Dashiell (North Carolina).

1056. Robinson, E. W. A preliminary experiment on abstraction in a monkey. *J. Comp. Psychol.*, 1933, 16, 231-236.—Using a modification of Klüver's pulling-in technique, the author trained a monkey to respond to a stimulus which differed from two other stimuli with which it was simultaneously presented. For example, "if two plain gray boxes and one with a black disc were shown, the one with the disc was

correct; if one plain gray box and two with black discs were shown, the plain box was correct." All "physically definable" cues were controlled. The author concludes that the monkey's behavior is an instance of abstraction.—N. L. Munn (Pittsburgh).

1057. Schneider, K. M. Beobachtungen über die Pupillengestalt bei einigen lebenden Säugetieren. (Observations on the pupil formation in some living mammals.) *Neue psychol. Stud.*, 1930, 6, 317-356.—R. R. Willoughby (Clark).

1058. Skinner, B. F. The measurement of "spontaneous activity." *J. Gen. Psychol.*, 1933, 9, 3-23.—The author examined some of the variables of which the behavior of the rat in a running-wheel may be a function. He describes a standard wheel, a method of recording, and an experimental procedure. Sample records are given to illustrate the application of the method to several problems concerning spontaneous activity, and the nature of the general phenomenon is discussed.—H. Cason (Wisconsin).

1059. Smith, K. U. Form discrimination in the cat. *Psychol. Bull.*, 1933, 30, 546-547.—Abstract.—J. F. Dashiell (North Carolina).

1060. Takagi, S. An experimental study of the discrimination and constancy of form in the tom tit (*Sittiparus varius varius*). *Jap. J. Psychol.*, 1933, 8, 521-549.—R. R. Willoughby (Clark).

1061. Talaat, M. The effect of ions on the cutaneous sensory endings of the frog. *J. Physiol.*, 1933, 79, 500-508.—Frog's skin treated with solutions containing Na<sup>+</sup>, or Na<sup>+</sup> and K<sup>+</sup>, but no Ca<sup>++</sup>, shows a much less rapid adaptation of the sensory endings to a prolonged stimulus. Thus the discharge, once started, may continue long after the stimulus has ceased. These changes develop sooner in solutions containing oxalate and the endings remain in continuous activity for 5 or 6 hours. The impulses are often discharged in groups. The results are discussed in relation to the behavior of muscle fibers and of sense organs of the slowly adapting type.—M. A. Rubin (Clark).

1062. Thomas, M. La psychologie animale devant la science et la philosophie. (Animal psychology in relation to science and philosophy.) *Rev. quest. scient.*, 1932, 51, 355-400.—The question of instinct is dependent on both science and philosophy. It is the duty of science to decide by the precise observation of the facts whether instinct is a tangible reality or a baseless fiction. It is then the duty of the philosopher to interfere and attempt to define instinct, if it is recognized as real, on the basis of the material furnished by the scientist. The author believes that an impartial consideration of the facts shows: (1) that the animal at birth knows the general plan of its existence; (2) that it applies this plan from birth, or at least from the moment when it can act for itself, without the necessity of education, the author believing that the experiments of Verlaine upon the construction or hexagonal cells by bees and wasps prove that the activity is derived from a specific instinct and is not the result of education and imita-

tion; (3) that the realization of the plan requires the functioning of auxiliary intellectual faculties guided by instincts; and (4) that the intelligence of the animal is fragmentary in comparison with that of man. Instinct is therefore a scientific reality, and animal behavior is of a psychological rather than of a mechanical order. Animal and human psychology are essentially the same, but there is a qualitative difference between human and animal intelligence in that the former includes factors non-existent in the latter. —R. Nihard (Liège).

1063. Tirelli, M. Studi sulla fisiologia del sistema nervoso degli insetti. (Study on the physiology of the nervous system in insects.) *Atti d. Pont. accad. sci. Nuovi Lincei*, 1929, 82, 138-150.—(*Biol. Abst.* VII: 18410).

1064. Tomilin, M. I., & Stone, C. P. Sex differences in learning abilities of albino rats. *J. Comp. Psychol.*, 1933, 16, 207-229.—Two experiments involving, in all, 136 rats are reported. Each male was paired with a female litter mate. All pairs began training at 100 days of age. Diet and body weight were carefully controlled. The measuring instruments comprised a Warden U-maze, a Stone multiple-light discrimination box, and a Miles type elevated maze. The animals learned the problems and were then required to learn a reverse pattern. The criteria of learning ability were as follows: median number of trials to meet the criterion, mean of total number of errors during a standard number of trials, and mean of total number of seconds spent in running the total trial series. Preliminary training on a straight runway preceded the tests. When subjected to statistical analysis the data indicated that there is no sex difference in the making or breaking of the habits investigated. Likewise, there is no sex difference in variability. Bibliography.—N. L. Munn (Pittsburgh).

1065. Trueblood, C. K., & Beck, L. F. Behavior of white rats in rotated mazes. *Psychol. Bull.*, 1933, 30, 548-549.—Abstract.—J. F. Dashiell (North Carolina).

1066. Tryon, R. C. Hierarchies of spatial abstractions as evidenced by maze cul-de-sac entrances of 1,000 rats. *Psychol. Bull.*, 1933, 30, 591.—Abstract.—J. F. Dashiell (North Carolina).

1067. Varner, W. B. The effects of alcohol on two maze habits of albino rats. *Psychol. Bull.*, 1933, 30, 616.—Abstract.—J. F. Dashiell (North Carolina).

1068. Verlaine, L. Psychologie comparée ou la physiologie du comportement. (Comparative psychology, or the physiology of behavior.) *Cent. du P. E. S. de Belgique (Cahiers de la Centrale, vol. 6)*. Pp. 179.—From the researches of Yerkes, Köhler, etc., on the intelligence of anthropoid apes, and from his own experiments and those of his students on young macaques and on insects (see VII: 3302, 4458, 4459, 4466), the author concludes that animals are capable of generalizing, i.e. of according to different objects the same significance of a means useful in the attainment of the same end. This is the fundamental phenomenon of psychic activity, and explains the

entire behavior of animals and man; generalization permits them to choose continually among the causes, mechanisms, and responses which constitute their possible activity in such a way as to realize completely the destiny of their species. This is possible due to associative memory (called by others conditional reflex), the only "faculty" of the animal which leads to a unique mode of "vital" activity, which is still unexplained by other modes and which will ultimately explain the organic and vegetative mind. Relying on his experiments on the Hymenoptera and on birds (see VII: 4460), Verlaine criticizes the traditional concept of instinct as an innate, perfect automatism, realizing an unknown end; the only innate factor is that of psychic potentialities which need a certain training, although perhaps a very short one, which do not always reach their goal, and which attain more or less quickly an automatism, which however is not exempt from the control of a superior intelligence. From these theses the author deduces pedagogical and moral corollaries, e.g.: morality is a matter of adaptation. Verlaine stresses the importance of the environment in education, and in consequence that of the educator, but also notes the limits of his effectiveness.—R. Nihard (Liège).

1069. Walls, G. L. The nature of the visual cells of lampreys. *Anat. Rec.*, 1930, 47, 285.—R. R. Willoughby (Clark).

1070. Wever, E. G., & Bray, C. W. Auditory sensitivity of katydids and crickets. *Psychol. Bull.*, 1933, 30, 548.—Abstract.—J. F. Dashiell (North Carolina).

1071. Wheeler, W. M. Colony-founding among ants with an account of some primitive Australian species. Cambridge: Harvard Univ. Press, 1933. Pp. viii + 179. \$2.00.—The author presents results of a study of colony-founding in aculeate Hymenoptera, with special emphasis on this behavior in the primitive Ponerine ants. He has found that the queens of the Ponerinae establish their colonies independently, though (with the probable exception of *Brachyponera lutea*) in a decidedly more primitive manner than the higher ants. The conclusion that the Formicidae were originally and still are haplometrotic insects receives strong support. Taxonomic data and natural history notes on these primitive Australian insects form a great part of the content of the book.—E. H. Kemp (Clark).

1072. Yoshioka, J. G. The role of sensory cues in the choice responses of chimpanzees. *Psychol. Bull.*, 1933, 30, 590-591.—Abstract.—J. F. Dashiell (North Carolina).

1073. Zuckerman, S. Functional affinities of man, monkeys, and apes: a study of the bearings of physiology and behaviour on the taxonomy and phylogeny of lemurs, monkeys, apes, and man. New York: Harcourt, Brace, 1933. Pp. 203. \$3.00.—The author discusses taxonomic and phylogenetic questions concerning the primates in terms of the evidence on such factors as: blood reactions, mechanisms of reproduction, receptor organs, intelligent

behavior, neural processes, and hybridization.—*W. S. Hunter* (Clark).

[See also abstracts 927, 932, 941, 953, 955, 966, 1006, 1076.]

#### EVOLUTION AND HEREDITY

1074. **Anderson, F. N., & Scheidemann, N. V.** A study of triplets. *Genet. Psychol. Monog.*, 1933, 14, 93-176.—This study reports the findings of investigations on three sets of triplets. One set is an identical set; the second consists of two identicals and an odd; the third has three dissimilars. Physical tests and measures, neurological, psychological, personality, and psychiatric investigations are reported. Data are also given on developmental history, finger-prints, handwriting, and dental formations. The second part of the study presents "37 possible modes of triplet genesis, giving rise to 10 distinct types of relationship among triplets." The bibliography includes 35 references. Plates and photographs are also included.—*F. M. Teagarden* (Pittsburgh).

1075. **Benedetti, P.** Costituzione e fecondità. (Constitution and fecundity.) *Coll. di Attualità Scient.*, Serie 1, No. 38. Bologna: Cappelli, 1932. Pp. 61. L. 10.—*R. Calabresi* (Rome).

1076. **Dawson, W. M.** Inheritance of wildness and tameness in mice. *Genetics*, 1932, 17, 296-326.—In order to determine whether wildness and tameness possess genetic determinants, the author studied the effect of crossing wild and tame mice upon the behavior of their offspring. The time taken to run a certain distance in a runway was used as a criterion of wildness or tameness. Coefficients of reliability for the behavior in the runway were around .80. 1232 mice were used and the data were given a statistical interpretation. The difference in speed of running (average of three trials) for the wild and tame strains was 24 times its probable error. The  $F_1$  generation, derived from crossing the wildest of the wild group and the tame of the tame group, was predominantly wild. The animals were only slightly less wild than their wild parent. There was no evidence of sex linkage. Mating  $F_1$ 's back to the tame stock gave different results from mating them back to the wild stock. Back crossings and *inter se* crossings gave segregation similar to that of other inherited characters. Association of the young with their mother had no effect upon their behavior in the runway. Analysis of the data from various types of crossings indicated that only a few genes are influential to any great extent. The genes for wildness seem almost completely dominant. There was very little evidence of linkage of the genes for wildness and tameness with albinism, pink eye, etc. Continued selection gave evidence of many modifying genes. Bibliography.—*N. L. Munn* (Pittsburgh).

1077. **Donati, G.** L'evoluzione. (Evolution.) Rome: Soc. Ed. Dante Alighieri, 1933. Pp. 139. L. 8.—The author presents and discusses old and new theories of evolution, and confirms the narrowness of the observations upon which many are based.

Darwinism and Lamarckianism, even in their recent forms, are unsatisfactory. The principles of Spencer are at once both too formal and too arbitrarily subjective. In studying the factors in evolution one must postulate the formation of living protoplasm furnished with an elementary consciousness. Individuality is the absolute point of departure of all theories, and the evolutionary process, considered from an interior biological and psychological point of view, consists in concrete accomplishments provoked by stimulation and by factors of evolution such as light, heat, and chemical substances. In the last chapters the author discusses the concept of species and the principles of form, movement, unity, and harmony from a point of view that partakes of dynamism and finalism.—*R. Calabresi* (Rome).

1078. **Frye, E. K.** The mechanical aptitude of siblings. *Psychol. Bull.*, 1933, 30, 574.—Abstract.—*J. F. Dashiell* (North Carolina).

1079. **Holmes, S. J.** The eugenic predicament. New York: Harcourt, Brace, 1933. \$2.00.—*R. R. Willoughby* (Clark).

1080. **Howells, T. H.** Heredity as a differential element in behavior. *Univ. Colo. Stud.*, 1933, 20, 173-193.—It is suggested that the chief obstacle to measurement of the influence of heredity on behavior is that the conventional concept of heredity is (1) static rather than dynamic, and (2) absolute rather than comparative. The fact that there is no lasting (temporal) line of cleavage between "inner" and "outer" factors makes impossible, at any given time, a clear distinction between or comparison of the hereditary and environmental contributions to the structure or behavior of the organism. This impossibility of an absolute and permanent distinction makes necessary an arbitrary and pragmatic classification of genetic sources, since the problem remains one of the differential effect of differences in breed. It is proposed, therefore, that some arbitrary spatial and temporal boundary be set between inner and outer, and antecedent and subsequent factors, or more specifically, that factors present within the organism at birth be referred to as hereditary. It is suggested that the conventional criterion of the inheritance of behavior traits, namely *appearance without practice*, is illogical and impracticable because it sets no such limits and supposes determination by a part (interior) rather than by the whole. As a substitute criterion it is proposed that the hereditary effect (as defined above) be stated comparatively and mathematically in terms of the development which occurs when a different newly born organism is provided with identical surroundings and treatment. In other words the criterion would be comparative readiness of development or *ease of learning*. This point of view suggests a new experimental approach, which is outlined. It also makes unnecessary the dichotomies of *hereditary* and *acquired*, and of *instinctive* and *learned*, provided both the "inner" and the "outer" situations are recognized as factors affecting the development of behavior.—*T. H. Howells* (Colorado).

1081. Kinser, E. L. Intelligence as affected by birth order. *Psychol. Bull.*, 1933, 30, 596.—Abstract.—J. F. Dashiell (North Carolina).

1082. Schwesinger, G. C. Heredity and environment. New York: Macmillan, 1933. Pp. ix + 484. \$4.00.—A virtually complete summary of all scientific work done on the problem indicated, with full references to the original studies. The chapter organization is as follows: measurement of intelligence; measurement of personality; definition of the heredity-environment problem; studies on genetic factors and stated environmental differences as they affect the development of intelligence; viewpoints on personality; conclusions. The last are to the effect (1) that techniques of all kinds are in a very imperfect state, with the intelligence-test material perhaps the best in sight; (2) that most of the observed variability in intelligence is probably due to heredity, with environment exercising ordinarily an influence sufficient to result in some thirty IQ points range; (3) that environment probably is predominant in influencing personality, with heredity setting rather generalized boundaries. There is an appendix giving ideas for further research. The references appear at the ends of chapters, and there are author and subject indexes.—R. R. Willoughby (Clark).

[See also abstracts 1115, 1122, 1133, 1170, 1187.]

## SPECIAL MENTAL CONDITIONS

1083. Finner, P. F. A critique of recent literature on suggestion. *Psychol. Bull.*, 1933, 30, 619.—Abstract.—J. F. Dashiell (North Carolina).

1084. Foà, C. Sonno, ipersonno e insonnia. (Sleep, hyper-sleep, and insomnia.) *Rass. med.*, 1932, No. 3, 109-121.—The author reviews the general theories of physiological sleep, its disorders, and the means which the physician adopts to cure the latter.—R. Calabresi (Rome).

1085. Freud, S. New introductory lectures on psycho-analysis. (Trans. by W. J. H. Sprott.) New York: Norton, 1933. Pp. 257. \$3.00.—A series of seven "lectures" (chapters) numbered, in continuation of the first *Introductory Lectures*, XXIX to XXXV. The titles are: revision of the theory of dreams; dreams and the occult; the anatomy of the mental personality; anxiety and instinctual life; the psychology of women; explanations, applications and orientations; a philosophy of life. The principal purpose is to bring the popular presentation of the doctrine up to date, but where the original structure has persisted, as it has very largely, enough of it is presented to make the formulation a unitary one.—R. R. Willoughby (Clark).

1086. Goldschmidt, J. S. A study of the interpretation of symbolic dream material. *Psychol. Bull.*, 1933, 30, 564-565.—Abstract.—J. F. Dashiell (North Carolina).

1087. Jenness, A. The facilitation of sleeping hypnosis by previous motor response in the waking state. *Psychol. Bull.*, 1933, 30, 580.—Abstract.—J. F. Dashiell (North Carolina).

1088. Klein, D. B. Psychology and Freud: an historico-critical appraisal. *Psychol. Rev.*, 1933, 40, 440-456.—The author seeks to set Freudian psychology in a more adequate perspective with reference to academic psychology. He is concerned with psychoanalysis as a complete system, not as a therapeutic method. First of all Freud merits credit for being a pioneer in the "autobiographical" attack on mental life. To this he adds the psychoanalytic technique as a means of interpreting the facts gathered thereby. Orthodox psychologists have borrowed many of these interpretive concepts, as "complex," etc., which are in complete contrast to their traditional categories. Freud's figurative and metaphorical expressions, as "the censor," have been unjustly criticized, for analogy is a common scientific procedure. In his dynamic approach and his articulation of psychological with ethical from the standpoint of mental conflict, Freud parallels the method of Plato. The cleavage between Freud and the academic tradition is that between the epistemological and the axiological approaches.—A. G. Bills (Chicago).

1089. Krapivkin, A., & Paschenko, F. [Two cases of hysterical sleep.] *Sovet. neuropatol. i psikhohigiya*, 1932, No. 5, 401-405.—In two cases described the authors have applied hypnoanalysis. As the fundamental psychogenic factors were found psychic traumas of a non-sexual character and some simple sexual conflicts, which does not quite agree with Freudian theory. Hypnotherapy has effected complete recovery.—A. Yarmolenko (Leningrad).

1090. Kuchina, E., & Zipes, A. [Data on the question of the correlation between vagotonia and suggestibility.] *Sovet. neuropatol.*, 1932, 1, 399-401.—On 100 patients the grade of suggestibility and the leucocyte formula were investigated. The suggestible patients showed an absolute and relative lymphocytosis, which the majority of authors consider a vagotonic symptom. The hysterics are more suggestible to hypnosis than the psychasthenics, and the former show eosinophilia oftener.—A. Yarmolenko (Leningrad).

1091. Lebedev, V. N. [The question of periodic sleep.] *Sovet. psikhonevr.*, 1932, No. 5, 95-97.—A. Yarmolenko (Leningrad).

1092. Ludovici, A. M. The secret of laughter. New York: Viking Press, 1933. Pp. 134. \$1.75.—The treatise summarizes what has been said by various writers, and gives an original interpretation of the phenomenon of laughter. The author attempts to show from what springs of human character laughter arises and by what psychological factors it is controlled. He considers that, as the expression of joy and pleasure, laughter should be found only in man. "I am going to suggest that there is something sinister in laughter. But by this I do not mean that it is necessarily bad. Many very desirable things have either had sinister beginnings, or else have their sinister side. Nevertheless, when we know the sinister side of laughter, although we may not, like Henry I, dismiss it forever from our gamut of expressions, at least we shall be in a position to understand

its function and the meaning of the present high esteem in which humour is held."—H. Cason (Wisconsin).

1093. Miller, H. C. *Psycho-analysis and its derivatives*. London: Thornton Butterworth, & New York: Holt, 1933. Pp. 256. 2/6.—The systems dealt with are psychoanalysis (Freud), analytical psychology (Jung), individual psychology (Adler), and the views of Hans Prinzhorn. These are all expounded, together with some comparisons and criticisms. A bibliography is included.—F. C. Bartlett (Cambridge, England).

1094. Mullin, F. J., Kleitman, N., & Cooperman, N. R. Studies on the physiology of sleep. X. The effect of alcohol and caffeine on motility and body temperature during sleep. *Amer. J. Physiol.*, 1933, 106, 478-487.—"Alcohol (300-375 cc. of 19 per cent) has either no marked effect or produces a decrease in the time spent in movement during sleep. The alcohol causes a distinct reduction of motility and body temperature during the first half of the night, with an increase in both over the controls during the last part of the night's sleep. Large doses of caffeine (4-6 grains) produce a marked increase in motility and body temperature during sleep. Small doses of caffeine (2 grains) cause no significant change in the body temperature during sleep, and usually cause a slight decrease in the nocturnal movements of the subject. Alcohol gives a subjective impression of having slept better, while the larger doses of caffeine produce disturbed sleep."—C. Landis (N. Y. Psychiatric Institute).

1095. Orton, J. L. *Hypnotism: the friend of man*. London: Thorson's, 1933. Pp. 280. 5/.—A rather popular book, giving some information of the history of hypnotism, a great many illustrations of its application, information concerning hypnotic procedures, and some criticism of common objections against hypnotic method.—F. C. Bartlett (Cambridge, England).

1096. Platonow, K. I. On the objective proof of the experimental personality age regression. *J. Gen. Psychol.*, 1933, 9, 190-209.—The author describes an investigation of the personality transformation of adults in the form of a regression to childhood as the result of a verbal suggestion. The results are interpreted according to the conditioned response principle, and it is claimed that the suggestion of previous ages produced an organic reproduction of engrams which were formed at earlier periods in the individual's life.—H. Cason (Wisconsin).

1097. Shraiber, J. L., & Yakovleva, E. K. [The question of experimental investigation of suggestibility of normal adults and neurotics.] *Psikhofiziol. eksper.*, 1933, 47-65.—The method of objective registration of the degree of suggestibility by means of the psychogalvanic reflex allows one to differentiate suggestibility according to the areas of realization of suggestion. The difference between pathological and normal suggestibility is not only quantitative but also qualitative. The realization of suggestion can be found in: (1) cortico-vegetative (psychogalvanic) and

speech reactions; (2) sensory fields; (3) motor reactions. The subjects are distributed as follows: traumatic patients show an increased suggestibility; then comes the normal group, and psychasthenics and neurasthenics show a decrease of suggestibility. The highest degree was found in the group of hysterical women. Suggestion can produce a positive or a negative effect. The position of the subject can be positively or negatively suggestible. The experiment has ascertained the possibility of influencing the vegetative functions and of objectively controlling subjective influence.—A. Yarmolenko (Leningrad).

1098. Tatum, A. L., & Seevers, M. H. Theories of drug addiction. *Physiol. Revs.*, 1931, 11, 107-122.—Tolerance is defined as the condition developed by certain drugs such that progressively larger and larger quantities are required to produce the effects desired. After a brief review of the literature, the author suggests that any theory of drug addiction must take into account and correlate the following: (1) Addiction to a drug may occur independently of acquired tolerance to that drug. (2) Only those drugs to which tolerance is developed produce such profound alterations in the central nervous system as to demand more of the drug to establish functional normality. (3) Tolerance appears to be developed only to that class of drugs which produce a reduction in the activity of the cells. (4) Increased sensitivity as contrasted to tolerance is developed to those drugs which increase the activity of the cells. (5) To that class of drugs which selectively increase the activity of some cells and depress others, sensitivity is developed to the first and tolerance to the latter. (6) Demonstrable neuropathologic changes occur in all cases of serious drug addiction. (7) The difference in rate of destruction and elimination between the addicted and non-addicted is not sufficient to account for all the developed tolerance to depressant drugs and sensitivity to stimulant drugs. (8) Exclusive of the central nervous system, the addict is organically essentially normal.—M. A. Rubin (Clark).

1099. Valle, J. Algunos aspectos de la actual lucha contra la toxicomania in Mejico. (Some aspects of the present struggle against toxicomania in Mexico.) *Bol. Oficina Sanitaria Panamericana*, 1932, 12.—A consideration of the commercial, psychological, and sociological aspects of drug addiction in Mexico. Of 315 addicts treated, 95% were of the lowest economic and social stratum. The majority of the offenders are concentrated between the ages of 20 and 40 years, particularly between 25 and 35. 47 of those afflicted had offended twice; 14 had offended three times. 25% had been taking drugs for less than one year, while 67% had been drug addicts for from one to ten years.—R. M. Bellows (Ohio State).

[See also abstracts 756, 938, 993, 1067, 1116, 1198, 1274, 1403.]

#### NERVOUS AND MENTAL DISORDERS

1100. Abbot, E. S., Aikens, H. A., Barkley, K. L., Bird, G. E., Bridges, J. W., Brown, J. F., Caster, J.

E., Coburn, C. A., Conrad, H. S., Coriat, I. H., Corvin, M., & Dearborn, G. V. The relation between psychiatry and psychology (a symposium). *Psychol. Exch.*, 1933, 2, 56-64.—J. F. Dashiell (North Carolina).

1101. Ashby, W. R., & Stewart, R. M. Size in mental deficiency. *J. Neur. & Psychopath.*, 1933, 13, 303-329.—Various workers, searching for a neural basis of amentia, have found a diminution in, say, the thickness of the cerebral cortex or the brain volume, and assumed that this must be causally related to the deficiency in intelligence. However, this might also be merely a symptom of general physical under-development. In the present study, measurements of body and head size show a pronounced correlation with mental age in 269 adult male defectives. Body measurements actually fall off more than brain measurements with decreasing intelligence. "Mental deficiency, therefore, must be regarded as essentially a general phenomenon, affecting the whole individual, rather than a localized disturbance affecting merely one small part."—D. G. Marquis (Yale).

1102. Biliotti, L. Considerazioni su alcuni aspetti del delirio paranoide. (Consideration of some aspects of paranoid deliria.) *Note e riv. di psichiat.*, 1932, No. 2, 289-311.—The author stresses the importance of the individual organic substratum.—R. Calabresi (Rome).

1103. Bender, L. Gestalt function in mental defect. *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, 38, 88-104.—Gestalt function is a function of all living tissue and especially nerve tissue. It does not resolve into laws such as given by Wertheimer. Gestalten are in a constant state of flux depending on the many factors which involve the organism in the environment. For example, in this experiment, it is emphasized that "the psychically experienced gestalten, specifically the visual motor patterns, are not determined by perception alone, but motor functions play an equivalent and inseparable part." The object of this study was to see "how gestalten arise genetically and how they develop in children and what happens to them in mentally defective individuals." 500 tests, using some of Wertheimer's figures, were made on normal children, defective children, and adults. Illustrative case reports are cited. There was a "much greater variety of productions among mental defectives of a given mental age level than among normal children of the same mental age." Their motor control was usually better than that of normals of similar mental age. Small energy-conserving figures were the rule, with the free use of the primitive loop. Perseveration tendencies in them tended to destroy the configuration; and fragmentation, dissociation, and hyperkinetic features sometimes occurred. The test is said to assist in differential diagnostic work.—M. W. Kuenzel (Mooseheart Laboratory for Child Research).

1104. Bernardi, R. Psicastenia ed anomala funzionalità del simpatico. (Psychasthenia and abnormal functions of the sympathetic.) *Rass. stud. psichiat.*, 1933, 22, 709-717.—R. Calabresi (Rome).

1105. Bevis, W. M. Presenile psychoses. *U. S. Vet. Bur. Med. Bull.*, 1933, 10, 130-132.—These forms of mental alienation, characterized by depressions, occur so early in the involutional period (40-50 years in females, rarely before 50 in males) that they cannot be considered the results of true senile degeneration. Tissue changes, vascular, glandular and neural, are important etiological factors, although some psychiatrists hold the condition to be functional.—C. M. Louttit (Indiana).

1106. Bronfenbrenner, A. N. Correlating morbid anatomy and clinical manifestations in the feeble-minded. *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, 38, 180-191.—The correlation of morbid anatomy with clinical manifestations of feeble-mindedness is difficult because feeble-mindedness is a social and not a medical category. In 100 autopsies brain weight appeared to have a direct bearing on intelligence, for each level required a certain minimum of brain matter (930 grams for morons and 650 grams for imbeciles), but it was found that an abundance of brain matter did not preclude a mental defect of the gravest degree. Morbid anatomy is correlated with clinical manifestations of such types of feeble-mindedness as epiloia (tuberous sclerosis of brain) but in Little's disease one finds the situation reversed, for here the clinical syndrome assists in finding the specific morbid anatomy. Certain types of feeble-mindedness are inconsistent in regard to their pathological nature, namely microcephaly, oxycephaly and other cranial deformities. Frequently the hydrocephalics do not have the characteristic head form. A table is provided which correlates brain weights with the functional values of the brains. 12 illustrations are included.—M. W. Kuenzel (Mooseheart Laboratory for Child Research).

1107. Bronner, A. F. Follow-up studies of mental defectives. *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, 38, 258-264.—Three studies are reported. The first shows in the case of non-institutional defectives, aged 18 years or older, whose IQ's were below 75, that 53% were adjusting successfully, 21% were failures, and 26% were doubtful. Factors which had no significance in relation to outcome were intelligence of parents, gross physical findings, racial background, and home conditions other than economic status. Positive correlations resulted between outcome and economic status, personality characteristics, and supervision given. The value of the prognoses made by the clinical staff was checked and it was found that where all recommendations were followed there was success in 77% and complete failure in only 2%. Where none of the recommendations was followed, 13% were successful and 60% failed. The second study, confined to delinquents, first offenders, and recidivists in which those of average and defective intelligence were compared, showed outcomes practically identical for the two groups. The third study had to do with 500 delinquents on probation. In summarizing results the author concludes that the defective may be managed so that he stands a fair chance of becoming no great burden to the com-

munity and that his personality characteristics are of the utmost importance in later success.—*M. W. Kuensel* (Mooseheart Laboratory for Child Research).

1108. Brown, F. W. The first census of state institutions with respect to mentally diseased, mentally defective and epileptic persons accused of crime and delinquency. *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, 38, 358-373.—This census was made by the Federal Bureau of Census in 1931. 85 institutions reported over 6000 persons, of which 92% were males. State hospitals reported 15% of admissions, whereas the 3 federal prisons reported 50%. Statistical tables and charts are incorporated which give "a fairly accurate picture of the number of mentally disordered persons in institutions who have been accused of crime and delinquency, together with their grouping as to specific mental disorders and the offenses for which they were committed." Interpretation of these data is left to various interested scientific workers.—*M. W. Kuensel* (Mooseheart Laboratory for Child Research).

1109. Brown, S., II. Community work in mental hygiene. *Psychiat. Quar.*, 1933, 4, 547-562.—The community service which each state institution should carry on in its district may be classified under mental hygiene clinics and public education in mental hygiene. The author proceeds to describe how such services should be conducted, and outlines the duties of psychiatrist, psychologist and social worker attached to the clinic. Under the heading of public education in mental hygiene is emphasized the need for continued activity on an ever-broadening scale. Suggestions as to the appropriate subject matter to be presented to various groups are offered and a suitable reading list follows.—*E. T. Burr* (Vocational Adjustment Bureau).

1110. Cameron, D. E. Mensuration in the psychoses. *Amer. J. Psychiat.*, 1933, 13, 153-169.—The author investigated the varying correlations between observation, testing, and the patient's report of his condition in five cases over an extended period, using phases of veronal and thyroid medication as potential variables. "It was found that the tests at the level of mentation (simple reaction time, giving nouns beginning with a stated letter, and Enke's test of capacity to carry on dissociated activities) gave the best correlations with the behavior chart, the mental tests being rather the more sensitive but requiring the behavior chart for their proper evaluation." Indirect tests, such as measures of weight, pulse, temperature, blood pressure, and respiratory curves gave less close correlation with the behavior chart. The patient's own statement was the least reliable.—*N. Goldman* (Boston Psychopathic Hospital).

1111. Clark, L. P. The need for a better understanding of the emotional life of the feeble-minded. *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, 38, 348-354.—To aid the feeble-minded in using whatever mental capacity they possess and to help them adjust to the usual social standards one must understand

their emotional life. Emotional fixations must be released and feelings of superiority or of inferiority must be readjusted. Their dynamic drives can be understood by applying the principles of Freud's depth psychology.—*M. W. Kuensel* (Mooseheart Laboratory for Child Research).

1112. Crutcher, H. B. Social work with the mental defective. *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, 38, 54-63.—Previously the social worker's chief function lay in getting mental defectives into institutions, now it is that of helping them adjust to society with the abilities and personalities they have. Illustrations which involve home, community, and institutional adjustments are offered to illustrate the techniques used by the social worker.—*M. W. Kuensel* (Mooseheart Laboratory for Child Research).

1113. Crutcher, H. B. Social work with the mental defective. *Psychiat. Quar.*, 1933, 7, 662-671.—The fact that the attitude of social workers toward the disposition of mental defectives has changed during recent years is particularly stressed. Whereas formerly institutionalization of these cases was generally the goal, now time and effort are expended in well-directed attempts to adjust each individual to life in the community. Some of the difficulties that arise when such an adjustment is sought are enumerated.—*E. T. Burr* (Vocational Adjustment Bureau).

1114. D'Antona, S. Orientamenti odierni degli studi sull' afasia. (Current status of studies of aphasia.) *Gazz. sanit.*, 1932, 6, 1-3.—*R. Calabresi* (Rome).

1115. Davidenkov, S. N. [The genealogical method in neuropathology.] *Sovet. neuropatol.*, 1932, 1, 459-464.—A special method of gathering genealogical data on patients can solve doubts as to the origin of symptoms and help to fix the diagnosis of nervous diseases. Many clinical data are given.—*A. Yarmolenko* (Leningrad).

1116. De Jong, H. Hormonale experimentelle Katatonie durch Adrenalin und Acetylcholin. (Hormonal experimental catatonia with adrenalin and acetylcholin.) *K. Akad. Wetenschap. Amsterdam, Proc. Sect. Sci.*, 1931, 34, 378-587.—(*Biol. Abst.* VII: 18398).

1117. Del Greco, F. Il significato psicologico terapeutico del "lavoro" nella cura degli infermi di mente. (The psychotherapeutic significance of work in the treatment of mental disorders.) *Arch. gen. psychiat. neur. e psicoanal.*, 1932, 1, 35-40.—Coercive, mechanical work has a very small curative value for psychopathic cases, while good results are secured with work which is related to the dispositions of the subject.—*R. Calabresi* (Rome).

1118. De Mennato, M. Le psicosi della vita carceraria. (Psychoses in prison life.) *Russ. stud. psychiat.*, 1932, 21, 707-730.—The author made a large number of observations in the hospital for the criminal insane at Naples, which revealed the presence of psychoneuroses, confusional states, hallucinatory psychoses, melancholia, and penitentiary psychoses

which result from long incarceration.—*R. Calabresi* (Rome).

1119. Du Bois, P. H. Improvement in mental functions as the result of the treatment of general paralysis by radiotherapy. *Psychol. Bull.*, 1933, 30, 566.—Abstract.—*J. F. Dashiell* (North Carolina).

1120. Earl, C. J. C. The human figure drawings of feeble-minded adults. *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, 38, 107-120.—Evaluation of Good-enough's test as a unit in a performance battery for use with feeble-minded subjects was the object of this research. Over 400 drawings were studied. In evaluating this scale the criteria selected were that life ages should range between 16 and 40 years and mental ages between 5 and 9 years. In comparison with drawings of normal children, the defectives succeeded best in the representation of detail, while normals excelled in correctness of proportion, execution of idea presented, and coordination. Qualitative analyses revealed differences in incoherence which involved integration, proportion, symmetry, and scatter. Other topics discussed are differences in self-criticism, sex, and evidences of psychopathy. The author concludes that the value of drawings as evidence of emotional abnormality is strictly limited, for the drawings themselves give little or no indication of the severity of the present condition.—*M. W. Kuenzel* (Mooseheart Laboratory for Child Research).

1121. Ellis, W. J. Institutional education and training for community release. A study of mentally deficient girls paroled from the North Jersey Training School at Totowa. *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, 38, 35-46.—One-fifth of the girls (167 cases) admitted to Totowa have been paroled. This new state institution provides special training for high-grade mentally deficient girls. 102 of the girls are now on parole under the supervision of the social service department; 36 have been discharged; there were 26 returns; and 3 died. The paroles average 36 months of institutional training and 11 months on parole. On admission life ages ranged from 13 to 19 years. Mentally, 75% classified as morons, 17% as above moron level, and 8% as imbeciles. 56% had records of delinquency prior to admission; most of the girls had marked unfavorable personality traits; 73% came from broken homes. An individualized and varied program of training was provided, consisting of common-school training, handwork classes, trade training, domestic-science training, and maintenance assignments, which latter are largely used for purposes of stabilization or discipline. Of the paroles half are living at home and half at their places of employment. Adjustment and work records of both groups are predominantly satisfactory. Earnings of employed girls range from maintenance only to \$50 per month and maintenance. Housework occupies most of the girls. Failure is usually due to the girl's background and maladjustment prior to admission. Credit for much of the success on placement must be attributed to the sympathetic understanding of the employer.—*M. W. Kuenzel* (Mooseheart Laboratory for Child Research).

1122. Emmet, M. Sulle psicosi famigliari. Ulteriore contributo allo studio delle psicosi indotte. (Concerning familial psychoses. A new contribution to the study of induced psychoses.) *Schizophrenie*, 1932, No. 3, 25-42.—The examination of cases reveals the existence of a predisposition to similar psychopathic reaction in the familial psychoses, a condition which has its maximum in the induced psychoses. The predisposition has its foundation in hereditary and constitutional factors.—*R. Calabresi* (Rome).

1123. Eyre, M. B. The role of emotion in tuberculosis. *Amer. Rev. Tuberculosis*, 1933, 27, 315-329.—This discussion is organized around the fact that an individual who experiences emotion is ready to act. In support of this statement the author cites the researches of Cannon, who demonstrated that the sympathetic division of the autonomic nervous system, through the adrenal glands (and possibly other tissues), prepares the body for activity at the same time that the individual is under emotional stress. If the discharge of this energy should not take place, then the preparatory processes become disturbers and disrupters of the organism. For the tuberculosis patient, this disturbance is severe, because he cannot work it off, or by change of locale shift his interest to another scene. Hence in tuberculosis, emotion devastates the organism to a greater degree than with a well and mobile individual. The conclusion is drawn that reeducation of the patient, in the sense of helping him to understand the sources of his emotional stresses in order that he may know how to re-route their component energy, is the most practical therapeutic aid for the emotional problems of tuberculosis.—*H. W. Karn* (Clark).

1124. Freeman, W. Neuropathology: the anatomical foundation of nervous diseases. Philadelphia: Saunders, 1933. Pp. 348. \$4.00.—This is a textbook describing briefly the macroscopic and in detail the microscopic changes occurring in the central nervous system in disease. With the exception of the last three chapters the chapter classification is determined by the type of tissue change rather than by the tissue of the nervous system involved. The discussions include a description of the cytology and cytopathology found in every manifestation of disease in each part of the nervous system. The first chapter has particular reference to the changes in individual cells rather than changes in a whole tissue. Chapters II and III describe the diseases of the meninges, blood vessels, and structures which are component parts of the nervous system but which are not made up of nervous tissue. Inflammatory changes of brain, spinal cord, and nervous system, comprising the third section, begin the discussion of neural tissue changes. Chapters V to VII include descriptions of tissue changes and the damage done by tuberculosis, syphilis, leprosy, fungus infections, and parasites. Chapter VIII contains short paragraphs describing the effects of intoxication upon nervous tissue, including not only alcohol, ether, chloroform, and drugs, but also metals, organic poisons, metabolic disorders, physical conditions, and toxins. Chapter IX is short, dis-

cussing cranio-cerebral trauma and birth injuries. Chapter X deals with the functional psychoses, senile dementia, and epilepsy. The last three chapters are concerned with malformations, degenerations, and intra-cranial tumors. There is an 8-page glossary.—*L. S. Selling* (Institute for Juvenile Research).

1125. Fresa, A. *Le crisi epilettiche in rapporto ai fenomeni naturali cosmici e geofisici.* (Epileptic attacks in relation to natural cosmic and geophysical phenomena.) *Arch. gen. neur. psichiat. e psicoanal.*, 1932, No. 1, 21-29.—According to the author, the lunar phases exercise a determining influence on motor attacks in particular, while disturbances of the solar surface bring about epileptic equivalents.—*R. Calabresi* (Rome).

1126. Garvey, C. R. *Comparative body build of manic-depressive and schizophrenic patients.* *Psychol. Bull.*, 1933, 30, 567.—Abstract.—*J. F. Dashiell* (North Carolina).

1127. Gerundo, M. *Sulla patogenesi della demenza precoce.* (Concerning the pathogenesis of dementia praecox.) *Pathologia*, 1932, No. 493, 771-779.—The malfunctioning of the liver produces a colloidal disequilibrium which causes mental disorders in subjects of the sympathetic-tonic type who have hereditary neural disorders.—*R. Calabresi* (Rome).

1128. Gilarovski, V. A. [The forms, contents, and course of psychoses.] *Sovet. neuropatol.*, 1932, 1, 332-351.—Psychiatry more than any field of medical sciences is connected with the social tenor of life. It can be said that each epoch had its own kind of psychiatry. The change of economic conditions connected with the change of ideology must influence psychic experiences and their pathological forms, the psychoses in particular. The substance of a phenomenon can be known best in its dynamics, and the substance of psychoses can be determined, for we can discern in it the reflection of profound social upheavals and changes of personality. The cases cited by the author make apparent the role of class-struggle in psychiatry.—*A. Yarmolenko* (Leningrad).

1129. Gilarovski, V. A. [The achievements of psychiatry in the USSR during 15 years, and its prospects.] *Sovet. psikhohigiya*, 1933, 2, 8-17.—*A. Yarmolenko* (Leningrad).

1130. Gilarovski, V. A. [The structure and concept of the so-called exogenous and symptomatic schizophrenia.] *Sovet. psikhohigiya*, 1933, 2, 18-30.—*A. Yarmolenko* (Leningrad).

1131. Gray, E. W. *An anatomical study of the brain in the feeble-minded.* *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, 38, 162-169.—The study "is limited to variations in the sulci and gyri and in gross anomalies of the structures seen on the base of the brain or in sagittal section" of 38 brains, representing 19 idiots, 15 imbeciles, 2 morons and 2 borderline cases. The anomalies of each brain are itemized. In 40% there were no unusual findings; 57% showed minor or localized atypical anatomy; there was a marked anomaly in one instance. Although minor

atypical structures were found in a large percentage of the lower-grade feeble-minded, gross developmental anomalies on the basis of this study do not play an important role in the etiology of feeble-mindedness. Five illustrations and a bibliography are appended.—*M. W. Kuenzel* (Mooseheart Laboratory for Child Research).

1132. Greene, R. A. *Conflicts in diagnosis between mental deficiency and certain psychoses.* *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, 38, 127-143.—Psychosis in both the feeble-minded and in children is not as infrequent as generally believed. Over 5% of previous admissions to a state feeble-minded institution have had sufficient mental aberration to warrant transfer to mental hospitals. Diagnoses made by the receiving hospitals show that 53% had definite psychoses; 25% were without psychosis; in 16% there was disagreement in the diagnosis from one mental hospital to the other; and in 5% there was no diagnosis. Analysis of the symptomatology is given and a plea made to clarify the classification of "psychoses with mental deficiency." Observation in the institutional and out-patient clinics revealed the following pathognomonic symptoms of present or future psychosis in children: (1) sex offense uncorrected by ordinary methods, exposure in particular; (2) return of untrained body habits or their persistence not explained by mental level; (3) vicious type of lying or stealing, or both, uncorrected by ordinary methods; (4) fire-setting, vicious type; (5) cruelty to mates or animals; (6) inability to correct misconduct of any kind by use of ordinary correctional measures.—*M. W. Kuenzel* (Mooseheart Laboratory for Child Research).

1133. Hackbusch, F. *Special classes as a dysgenic factor.* *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, 38, 67-70.—In the special classes are found both the low-grade defectives coming from families of good hereditary backgrounds and the higher grades arising from defective family strains. Usually the former are recommended for institutional placement because of their degree of defect, whereas the latter, who are much more of a social menace, are retained in the special classes. A plea is made for greater legal supervision of these hereditary defectives. Institutionalization should be made possible on the basis of family history and social conditions as well as on the degree of defect.—*M. W. Kuenzel* (Mooseheart Laboratory for Child Research).

1134. Heller, T. *Über Psychasthenie.* (Concerning psychasthenia.) *Zsch. f. Kinderforsch.*, 1930-31, 39, 17-32.—The characteristics of psychasthenia in the child and its treatment.—*K. C. Pratt* (Michigan Central State Teachers College).

1135. Hunsicker, H. H. *Wilson's disease.* *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, 38, 172-179.—Since relatively few case studies of Wilson's disease have been published, the author is offering three. Descriptions of etiology, symptomatology, clinical types and course, pathology, and diagnosis, as well as a bibliography are included. The disease consists of a progressive lenticular degeneration resulting in

rhythmic tremor of extremities, hypertonicity of muscles, cirrhosis of the liver, difficulty in swallowing and in speech, corneal pigmentation, muscular weakness, increase in reflexes, and emotional instability. Post-encephalitic conditions in children closely resemble this disease. Prognosis is unfavorable. Treatment is of no avail.—*M. W. Kuenzel* (Mooseheart Laboratory for Child Research).

1136. Inman-Kane, C. V. The relation of premature birth and under-weight condition at birth to mental deficiency. *Psychol. Bull.*, 1933, 30, 596-597.—Abstract.—*J. F. Dashiell* (North Carolina).

1137. Kreezer, G. Neuromuscular excitability in the mentally deficient. *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, 38, 193-201.—In this preliminary report of work being carried on at the Vineland Training School the author stresses the importance of studying the living nervous systems of the feeble-minded; describes two methods, namely those of action currents and of measuring the excitability of tissues; and points out the significance of employing such methods. Experiments now in progress are (1) measuring the chronaxies of peripheral nerves for feeble-minded subjects of various grades of deficiency and of different clinical types; (2) studying the relationship between the degree of emotional excitability of various types of feeble-minded subjects and the chronaxy of subordination of certain nerves; and (3) determining whether the different types of motor handicap, such as spasticity and athetosis, shown by birth-injured children, are dependent on abnormal relationships between the chronaxies of the muscle involved. Sufficient data have not yet accumulated to warrant drawing any conclusions.—*M. W. Kuenzel* (Mooseheart Laboratory for Child Research).

1138. Krol, M. V. [The progress of neuropathology in the USSR during 15 years.] *Sovet. psikhologiya*, 1933, 2, 1-7.—*A. Yarmolenko* (Leningrad).

1139. Levi-Bianchini, M. Il suicidio e l'omicidio degli alienati internati negli ospedali psichiatrici. (Suicide and homicide among the insane confined in psychiatric hospitals.) *Arch. gen. di neur. psichiat. e psicoanal.*, 1933, 14, 205-278.—*R. Calabresi* (Rome).

1140. Lord, A. B. A survey of special class pupils in Massachusetts. *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, 38, 249-254.—Massachusetts is caring for 12,000 mentally defective and retarded children in special classes. A survey of a representative sampling of 500 of these children who live in two large towns and two cities was made during the year. Statistics are provided on intelligence, delinquency, vocational and social adjustment, school work, physical handicaps, and the need for guidance. Large numbers are succeeding socially and vocationally. Three-fourths of their homes are effective. Delinquency is not necessarily a characteristic of the group. Usually physical defects do not handicap their success. Training is more important than academic learning. Visiting teachers should be employed.—*M. W. Kuenzel* (Mooseheart Laboratory for Child Research).

1141. Lucena, J. Perturbações mentais simultaneas em varios membros de uma familia. (Simultaneous mental disorders in various members of a family.) *Arq. assist. psicopat. de Pernambuco*, 1933, 3, 64-69.—Etiologically psychoses and neuroses which appear simultaneously in a family group are of three kinds: (1) those brought on by a common physiological constitutional predisposition, (2) those resulting from common environmental stresses not caused by a member of the family (e.g. war psychoses), and (3) those brought about by the fact that one psychotic member of a family creates a morbid environment to which the others cannot normally adjust. Syndromes of this latter type are considered as "contagious." Case studies of each type are included. Preventive mental hygiene is indicated. The desirability of early separation is emphasized.—*R. M. Bellows* (Ohio State).

1142. Martz, E. W. Recent trends in the problem of cerebral birth lesions. *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, 38, 311-327.—A bibliographic study is offered covering the topics of etiology, hemorrhagic diathesis, trauma, prolonged labor, prematurity, intra-uterine factors, and cases without neuromuscular involvement. Trauma, anoxemia, prematurity, and particularly intra-uterine encephalopathies are receiving greater emphasis as predominating etiological factors. In the case of 2360 feeble-minded who were admitted to Letchworth Village during a 5-year period, 4% were diagnosed as cerebral birth-lesion cases. Of these 89 cases, there were 42 idiots, 35 imbeciles, 11 morons and 1 border-line case. 8 cases lacked outstanding neuro-muscular symptoms. Cases of diplegia ranged in the lower mental levels; hemiplegias tended toward higher intelligence. Tables show the relation of physical diagnosis to intelligence, type of birth to subsequent paralysis, and an analysis of data about the birth, behavior, and neuro-muscular conditions of 8 physically normal birth-lesion cases. Treatment consists in surgery, physiotherapy, and education, which latter includes psychiatric treatment.—*M. W. Kuenzel* (Mooseheart Laboratory for Child Research).

1143. McPherson, G. E. Special classes for retarded children. *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, 38, 202-209.—A criticism is made of the practice common among public-school systems of putting retarded children into the special class simply for the purpose of ridding the regular classrooms of these slow pupils. Too little attention has been paid to building up a belief in the value of giving these children the type of instruction best suited to their present as well as future needs. Academic training should be limited to the simple essentials involved in the routine of ordinary daily life, and manual and occupational training should be maximized by training on up-to-date machinery. Differential training should be started at as early an age as possible, and above all the retarded child should be recognized as an individual who has a distinct personality of his own and possesses abilities as well as disabilities.—*M. W. Kuenzel* (Mooseheart Laboratory for Child Research).

1144. Meerovich, R. J., & Myasishchev, V. N. [Experimental data on the question of the mechanism and pathogenesis of obsessions.] *Psikhofiziol. eksper.*, 1933, 66-86.—When their defensive conditioned and unconditioned reflexes are investigated, neurotic patients with obsessions show a preponderant excitation in a comparatively large proportion of motor reflexes. From the experimental results the patients can be divided into two groups: (1) those with obsessively stable reflexes, not extinguishable notwithstanding the efforts of the patient to inhibit them. (2) In the second group the pathogenesis of obsessions has as its origin the decrease of neuropsychic activity, especially of the higher processes, and several elementary automatic processes predominating.—A. Yarmolenko (Leningrad).

1145. Myasishchev, V. N., & Yakovleva, E. K. [The role of subcortical ganglia in the neuropsychic activity of man. (Data from an experimental investigation of postencephalitic parkinsonians.)] *Psikhofiziol. eksper.*, 1933, 22-46.—The motor reactions of postencephalitic parkinsonians are disordered not only in their extra-pyramidal and extra-cortical components, but also in the cortico-pyramidal and frontal systems. The formation of defensive and expressive reactions is disordered, although the elementary ability to form the connections is maintained, and only their display is restrained. The vegetative reactions connected with the primary conditioned stimulus are decreased, especially breathing. The higher neuropsychic (cortical) activity is also altered, but not so much as is subcortical activity. Psychovegetative reactions based on the premorbid experience are maintained better, but the new ones are formed slowly. Deprivation of the dynamic basis of all elementary and higher reactions explains the torpidity and apathetic behavior of parkinsonians. The experiment made in these cases allows us not only to demonstrate the quantitative basis of the symptoms, well known in the clinic, but also to formulate some symptoms which are less accessible to observation.—A. Yarmolenko (Leningrad).

1146. Myerson, A. Nature of feeble-mindedness. *Amer. J. Psychiat.*, 1933, 12, 1206-1226.—The heredity of various groups of feeble-minded at Waverly was examined. "The important facts in this study of these groups are, so far as heredity is concerned, the relative absence of feeble-mindedness in brothers and sisters, and the relatively few cases where definite feeble-mindedness occurred in the parents." No proof is found that syphilis causes feeble-mindedness, and the author concludes that "we can safely state that syphilis of ancestors causes little, if any, feeble-mindedness." The incidence of physical defect among the feeble-minded suggests that the whole organism is probably defective. Such results make it impossible to conceive of feeble-mindedness as a Mendelian character. A study of ten family groups selected from several hundred family groups studied, as representative of varying family situations in which feeble-mindedness appears, shows the inadequacy of the concept of the inheritance of

feeble-mindedness. The influence of the environment in the development of the organism is stressed. To explain the defective individual by heredity is to leave out of account many factors of great importance in the moulding of the personality.—N. Goldman (Boston Psychopathic Hospital).

1147. Nyirő, G. Kötözségi és pszichiátria. (Poet geniuses and psychiatry.) *Magyar Psychol. Szemle*, 1933, 6, 63-86.—An analysis of poems of manic-depressives and schizophrenics shows the following results: The poems of the manic-depressives are serene, with an easy rhythm, a sense of humor, always in contact with reality. The poems of the schizophrenics, however, have a complicated rhythm, show metaphysical elements, and are abstractions from reality. The qualities which are excessive in psychotic patients are also far developed in the character and temperament of real geniuses, but in the genius they show another combination and are constituents of another psychic structure.—A. Angyal (Worcester State Hospital).

1148. Panov, A. G. [The experimental analysis of acoustic disorders in diseases of the nervous system.] *Psikhofiziol. eksper.*, 1933, 3-21.—As an objective proof of acoustic function the possibility of the formation of conditioned reflexes on acoustic stimuli can serve. Several parallel effectors must be included in the experiment; the most valuable is the psychogalvanic reflex, as an indicator of the state of the vegetative nervous system. This method allows one to differentiate organic from functional deafness. In hysterical deafness the formation and differentiation of the conditioned reflex is simultaneously a testing and a therapeutic measure. The presence of an orientation-reflex to the acoustic stimulus, without the formation of conditional connections between the effector and irritator, is evidence of a decrease of corresponding cortical center functions.—A. Yarmolenko (Leningrad).

1149. Paterson, A. S. The so-called law of anticipation in mental disease. *J. Neur. & Psychopath.*, 1933, 13, 193-210.—The law of anticipation may be stated as the tendency for an inherited disease to occur in the child at an earlier age than that at which it occurs in the parent. Examination of the records of more than 4000 cases reveals no evidence for this law; the apparent antedating of mental disease in the children is merely the result of the way in which the previous material was collected.—D. G. Marquis (Yale).

1150. Penrose, L. S. Mental defect. London: Sidgwick & Jackson, 1933. Pp. xi + 183. 8/6.—This is a general textbook on mental deficiency. A historical introduction is followed by sections on methods of physiological and neurological examination. Some special attention is paid to modern laboratory methods turning largely on blood examinations. Psychological methods of examination are next considered, and following this comes an account of the methods of collecting and utilizing personal and family case histories. The classification of mental defect is discussed and the main recognized

types of defect are described with illustrations. It is shown that mental deficiency should not be confounded with mental disorder, and some brief study of the latter is included. Subcultural amentia is discussed and methods of treatment for mental defect are described and evaluated. A glossary of technical terms used is provided.—*F. C. Bartlett* (Cambridge, England).

1151. **Petit, G.** Régression juvénile, inversion sexuelle par hyperendocrinie dans la manie et la cyclothymie. (Juvenile regression, sexual inversion by hyperendocrinism, in mania and cyclothymia.) *Ann. méd.-psychol.*, 1933, **91**, 289-301.—Both in childhood and in mania there is a hyperactivity of the endocrine glands, accompanied by the same psychological characteristics, such as egotism, flight of ideas, and exuberance. In many cases of mania and cyclothymia there is increased sexual activity, even in relatively old patients. Some patients become exclusively homosexual while others exhibit both homo- and heterosexual activity. Abstracts of ten cases are reported. It is pointed out that many of these manic patients are very paranoid, and the psychoanalysts associate homosexuality with paranoia.—*M. B. Mitchell* (New Hampshire State Hospital).

1152. **Piotrowski, Z. A.** The test behavior of schizophrenic children. *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, **38**, 332-344.—In young children the differentiation between schizophrenia and mental deficiency is said to present great diagnostic difficulty, since both make poor test scores. So qualitative analyses were made of psychometric test results in the case of 6 schizophrenic boys ranging in age from 4 to 10 years and 8 unstable mental defectives from 6 to 17 years of age. Case descriptions are offered. Schizophrenics earned better scores on verbal than on performance tests, whereas the defectives did the reverse; in schizophrenics the variability on verbal tests was smaller than on performance tests, the reverse holding for defectives; on the formboard test schizophrenics did not remove blocks correctly placed whereas defectives tended to do so; retests on schizophrenics result in improved scores, whereas mental defectives do not improve on retesting; schizophrenics do not react to urging and praise, whereas defectives do.—*M. W. Kuenzel* (Mooseheart Laboratory for Child Research).

1153. **Popova, G., & Skvorzov, K.** [An access of pathologic drowsiness in a patient with cerebral arteriosclerosis.] *Sovet. neuropatol.*, 1932, **1**, 396-399.—*A. Yarmolenko* (Leningrad).

1154. **Porter, J. M., Jr.** Galvanic skin phenomena in epileptics. *Psychol. Bull.*, 1933, **30**, 615.—Abstract.—*J. F. Dashiell* (North Carolina).

1155. **Potter, H. W.** Schizophrenia in children. *Amer. J. Psychiat.*, 1933, **12**, 1254-1270.—"From this study (of five cases) it appears that a typical schizophrenic reaction may put in its appearance long before the initiation of pubescence. Because of the fact that the child is limited in his verbalizations and the fact that his thinking is in the direction of concreteness rather than abstraction, what little delu-

sional formation there is is exceedingly simple and naïve. The outstanding symptomatology is found in the field of behavior and a consistent lack of emotional rapport."—*N. Goldman* (Boston Psychopathic Hospital).

1156. **Potter, H. W.** The training of physicians in mental deficiency. *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, **38**, 375-378.—The need for medical leaders in the field of mental deficiency and the responsibility of the state schools in training such are emphasized. Training in constitutional, neurological, and psychiatric medicine is essential, besides a familiarity with psychometrics, education, and sociology.—*M. W. Kuenzel* (Mooseheart Laboratory for Child Research).

1157. **Prengowski, P.** Une forme spéciale de troubles de l'association des idées. (A special form of disturbance of the association of ideas.) *Ann. méd.-psychol.*, 1933, **91**, 312-341.—The responses given to 50 stimulus words and the replies to the routine psychiatric examination are given in parallel columns for three patients. Two of the patients are diagnosed dementia praecox. Their responses show less flight of ideas and more incoherence than do those of the third patient. The responses of less deranged patients are compared with these. The two factors, flight of ideas and incoherence, are frequently complicated by disorientation, sensory troubles, delusional ideas, and difficulties of attention.—*M. B. Mitchell* (New Hampshire State Hospital).

1158. **Purdy, D. M.** A case of chromatic agnosia and its modification with time. *Psychol. Bull.*, 1933, **30**, 575.—Abstract.—*J. F. Dashiell* (North Carolina).

1159. **Raymond, C. S.** The need for research in the field of mental defect. *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, **38**, 71-80.—Surveys have shown that approximately 2% of the population is feeble-minded. Less than 50,000 are in state institutions, while about 30,000 more are in hospitals and other institutions. On the basis of an average per capita cost of \$1 per day, the total cost to the taxpayer of those in institutions amounts to about \$30,000,000 per year, and the amount incident to the care, training and protection of the others who are not in institutions is almost incalculable. In the past organized, persistent, scientific research has been woefully lacking. Medical research has been hampered because of overstatements concerning heredity and the prominence given to the psychological aspects of the problem due to mental testing. The very great need for intensive pathological work is stressed. A general historical review of some of this work is offered. A plea is made for one well-equipped centralized laboratory for each state. At present there are but three laboratories for research in feeble-mindedness in this country, these being located at The Training School at Vineland, New Jersey, at the New York state institution at Letchworth Village, and at the Massachusetts state school at Wrentham.—*M. W. Kuenzel* (Mooseheart Laboratory for Child Research).

1160. Reichard, J. D. A neuropsychiatric service in a Marine Hospital. *U. S. Pub. Health Rep.*, 1933, 48, 1136-1143.—A report of the work at the neuropsychiatric clinic at Ellis Island.—C. M. Loultit (Indiana).

1161. Ricker, C. S. Occupational therapy in a new field. *Bull. Mass. Asso. Occup. Therap.*, 1933, 1-4.—A discussion of the work being done in occupational therapy in the Female Defective Delinquent Department at the State Farm in South Bridgewater, Mass. The report includes a tentative outline of the adjustment prognosis now in use; it is basically an adaptation of forms used at the Worcester State Hospital.—H. W. Karn (Clark).

1162. Salmon, A. Le turbe psichiche d'origine ipofisaria. (Psychic disorders of hypophyseal origin.) *Cervello*, 1933, 12, 313-336.—R. Calabresi (Rome).

1163. Satô, K. Studien über die Wahrnehmungsstruktur der Geisteskranken. I. Über das Zeichnen der Schizophrenen durch Reproduzieren und Abbilden von Vorlagen. (Studies on the structure of perception in the insane. I. On the drawing of schizophrenics when reproducing an object and when copying from a pattern.) *Jap. J. Psychol.*, 1933, 8, 91-107.—With German abstract.—R. R. Willoughby (Clark).

1164. Simson, T. [Schizophrenia in preschool children.] *Sovet. psikhonevr.*, 1932, No. 5, 65-70.—A. Yarmolenko (Leningrad).

1165. Smalldon, J. L. The etiology of chronic alcoholism. *Psychiat. Quar.*, 1933, 4, 640-661.—This article contains a résumé of the literature, and, beginning with references to the inebriety of Noah and Aaron in biblical times, presents the opinions of some 41 authorities upon the disturbance of functioning commonly associated with the consumption of alcoholic beverages. These quotations are followed by two case histories which illustrate the Freudian psychogenetic viewpoint. Both patients review in retrospect their delusional content, from which the author draws certain pertinent conclusions.—E. T. Burr (Vocational Adjustment Bureau).

1166. Steinmann, I. Über Mitbewegungen bei Hilfsschulkindern. (Concerning [involuntary] associated movements in opportunity-school children.) *Zsch. f. Kinderforsch.*, 1931-32, 39, 83-115.—The author presents a critical review of the literature upon the normal and pathological aspects of involuntary associated movements. Investigation of such movements, by testing the normal and pathological reflexes and by observing the movements accompanying flexion of a finger, clenching of the fist, writing, etc., in 80 opportunity-school children and 40 normal children revealed that the movements are more intense in younger children. They are also greater in the opportunity-school than in the normal children.—K. C. Pratt (Michigan Central State Teachers College).

1167. Tripodi, M. Le alterazioni del respiro negli stati ansiosi e depressivi. (Respiratory changes in states of anxiety and depression.) *Rass. stud. psichiat.*, 1932, fasc. 6, 1134-1151.—The respiratory

quotient increases when anxious and melancholic subjects pass from a condition of calm to one of melancholy. The existence of a special type of respiration in melancholics suggests that the alteration of respiration is related to the cause of the mental activity rather than to the activity itself.—R. Calabresi (Rome).

1168. Trossarelli, A. Lo studio delle condizioni geologiche del suolo in rapporto ai casi ed alle forme di alienazione mentale in Italia. (The study of geological conditions in relation to cases and types of insanity in Italy.) *Ann. osp. psichiat. di Perugia*, 1932, 26, pp. 36.—The writer considers the changes which meteoric factors and cosmic radiations (i.e., phenomena closely connected with the constitution of the soil) may bring about in the human body. He tries to establish the existence of relations between the geological nature of the soil and mental forms. From his studies he concludes that the geological constitution of the strata of the earth seems to exercise a certain influence on the development of mental diseases in general and on certain forms in particular.—R. Calabresi (Rome).

1169. Zimmermann, H., & Chernishov, A. [The significance of spontaneous vestibular nystagmus in a case of cerebello-pontine tumor.] *Sovet. neuropatol.*, 1932, 1, 479-499.—A. Yarmolenko (Leningrad).

1170. Zotin, N. N. O semeynoy microtzecephalii. (Family microcephaly.) *Sovet. psikhonevr.*, 1932, 8, 55-64.—The author reports the cases of three brothers who were under his observation in the Ukrainian Institute. Their history revealed that both parents came from families with marked pathological traits and with a predisposition toward microcephaly; that the children were conceived when both parents were under the influence of alcohol; and that during the pregnancies, the mother was subject to physical and psychical traumas. The analysis of the patients' reactions showed that all reflexes on both lower and higher levels were present, but that the quantity and quality of the established connections were not the same as in normal subjects. In the reported cases, a definite correspondence was found between (1) the measurement of the heads, (2) physical development, and (3) the development of the higher nervous functions. The author concludes that microcephaly, as a disease entity, is due primarily to an innate predisposition; and that the reported occurrence of microcephaly in families would be less rare if a detailed genealogical history were available for each microcephalic reported in the literature.—E. R. Grossmann (Columbia).

[See also abstracts 810, 950, 1090, 1097, 1176, 1189, 1203, 1234, 1266, 1291, 1299, 1316, 1330.]

## PERSONALITY AND CHARACTER

1171. Awaji, Y., & Okabe, Y. Character test and version quotient. *Jap. J. Psychol.*, 1933, 8, 417-439.—R. R. Willoughby (Clark).

1172. Beck, S. J. The Rorschach method and the organization of personality. *Amer. J. Orthopsychiat.*,

1933, 3, 361-365.—Evidence from Rorschach tests and the clinic leads to the generalization that the unitary personality arises from the organization of four psychological processes and the environment. Form recognition, organizing energy, affective drive, and creative activity are the processes involved.—*H. Peak* (Randolph-Macon).

1173. Boda, I. *Lélektan és karakterologia*. (Psychology and characterology.) *Magyar Psychol. Szemle*, 1933, 6, 87-113.—Dékány distinguished according to the direction of their interest and activities three fundamental personality types: the technical type, which is directed toward material objects; the social type, toward other persons; and the axiological type, toward super-personal values. Boda's main objection to the personality types of Dékány is that personalities differ from each other not only in regard to the realm of objects toward which they are directed, but also in regard to whether they are turned toward their own ego or toward the outside world. From this point of view one can distinguish three types, the autocentric, the heterocentric and the indifferent. These types are further subdivided according to the field of interest (the self, the outside world and the fantasy world). These subtypes are further to be divided into (a) passive and (b) active ones.—*A. Angyal* (Worcester State Hospital).

1174. Colucci, C. *Sintesi biologica della personalità psichica*. (The biological synthesis of the psychic personality.) *Morgagni*, 1933, No. 12, 1-25.—The author defends a unitary conception of the anatomical, physiological and psychic personality, and believes that thought in its quality of a biological phenomenon is a natural value. The biological characteristics are more evident in the primordial phases of the life of the individual, the race, and the family. Sleep, senility, abnormalities and degenerations, the alterations and the negative phases of the highest mental functions reveal a strictly biological character. Prophylaxis, eugenics, pedagogy, and psychotechnics are based on a conception of a biological unit.—*R. Calabresi* (Rome).

1175. Dybowski, M. Downey will-temperament tests and a corresponding questionnaire experiment. *Kwart. psychol.*, 1933, 4, 1-23.—The Downey tests applied to 18 adults seemed to be fairly reliable for measuring the traits intended. They correlated somewhat favorably with a questionnaire of temperament traits. The tests were found to be more difficult for adults of superior intelligence because of the critical attitude they assumed. Of the three groups of tests of will-temperament those in the second group (aggressive features) seemed the most reliable and valid. The article ends with a discussion of the difficulties involved in consistently profiling types of individuals.—*T. M. Abel* (Sarah Lawrence).

1176. Enke, W. *Erwiderung auf E. R. Jaensch's "Auseinandersetzen in Sachen der Eidetik und Typenlehre."* (Reply to E. R. Jaensch's "Discussion of Problems in Eidetics and Typology.") *Zsch. f. Psychol.*, 1933, 130, 96-102.—In answer to Jaensch's

criticism of the Kretschmer typology it is held (1) that widespread tests of the Kretschmer types have proved them conclusively to be more than mere clinical types based on pathological cases, and (2) that the apparent contradiction between Kroh's results and those of Enke and Heising in connection with studies of attention in schizothymes is merely a surface contradiction due to fundamental methodological differences, and consequently that the charge of heterogeneity laid against the schizothymic type is unfounded.—*R. B. MacLeod* (Swarthmore).

1177. Farnsworth, P. R. A study of Bernreuter profiles. *Psychol. Bull.*, 1933, 30, 600-601.—Abstract.—*J. F. Dashiell* (North Carolina).

1178. Ford, C. A. The Allport-Vernon "Study of Values" test applied to entering freshmen. *Psychol. Bull.*, 1933, 30, 557.—Abstract.—*J. F. Dashiell* (North Carolina).

1179. Friedemann, A. *Experimentelles und Psychologisches zur Kenntnis der Persönlichkeit*. (Experimental and psychological facts in personality study.) *Psychiat. Neur. Woch.*, 1933, 35, 426-431.—The writer gives a critical review of the researches of Jaensch, H. Schenk, Ferrière, Decroly, Vernon, Petzold, Bumke, and E. A. Bernhardt. It is a consequence rather of the stage of our present knowledge than of the special nature of characterology that our views on physical build and character are very defective. No school can aim at present at being able alone to understand personality, and on the other hand no direction in personality research should be rejected if it is able to give some kind of contribution to the problem.—*P. Plaut* (Berlin).

1180. Goldzieher, K. R., & Németh, P. *Onderzoek van de persoonlijkheid van jeugdige asociale*. (Investigations of the personality of juvenile delinquents.) *Tidisch. v. wetensch. graphol.*, 1933, 5, 97-110.—An analysis is made of specimens of the handwriting of young delinquents in an effort to discover the internal causes of their misconduct. The authors consider graphological analyses an important approach to the problems of juvenile delinquency.—*S. H. Newman* (Clark).

1181. Harding, M. E. *The way of all woman: a psychological interpretation*. New York: Longmans, 1933. Pp. 350. \$3.00.—*R. R. Willoughby* (Clark).

1182. Harris, D. Group differences in "values" within a university. *Psychol. Bull.*, 1933, 30, 555-556. Abstract.—*J. F. Dashiell* (North Carolina).

1183. Hausmann, M. F. A test to evaluate some personality traits. *J. Gen. Psychol.*, 1933, 9, 179-189.—Data are given on the behavior of six typical cases in a situation designed to give experiences of success and failure.—*H. Cason* (Wisconsin).

1184. Horney, K. *Maternal conflicts*. *Amer. J. Orthopsychiat.*, 1933, 3, 455-463.—A psychoanalytic discussion of the mechanisms by which a mother's relations to her own parents are reflected in her attitude toward her children.—*H. Peak* (Randolph-Macon).

1185. Humm, D. G., & Wadsworth, G. W., Jr. A diagnostic inventory of temperament, preliminary report. *Psychol. Bull.*, 1933, 30, 602.—Abstract.—J. F. Dashiell (North Carolina).
1186. Jones, M. C., & Tryon, C. M. Consistency and constancy of judgments of personality traits by sixth and seventh grade children. *Psychol. Bull.*, 1933, 30, 602-603.—Abstract.—J. F. Dashiell (North Carolina).
1187. Kulp, D. H., II, & Davidson, H. H. Sibling resemblance in social attitudes. *J. Educ. Sociol.*, 1933, 7, 133-140.—The social attitudes of about 4000 high school pupils in ten senior high schools were measured by the Neumann, Kulp, and Davidson International Attitude Test. The test scores of sibling pairs showed correlations as follows: brothers, .29; sisters, .41; brother-sister, .30; all, .32. An equal number of random pairs showed correlations of practically zero. The authors conclude "that the home is, in general respects, more potent in influencing social attitudes than the school." A review of previous studies of sibling resemblance is included (12 titles).—F. D. McTeer (Detroit Municipal University).
1188. Künkel, F. Die Arbeit am Charakter. Die neuere Psychotherapie in ihrer Anwendung auf Erziehung. Selbsterziehung und seelische Hilfeleistung. (Work on character. The new psychotherapy and its application to education, self-education, and capacity for psychotherapy.) Schwerin: Bahn, 1932. Pp. 167.—R. R. Willoughby (Clark).
1189. Marshall, H. Clinical applications of the Bernreuter personality inventory. *Psychol. Bull.*, 1933, 30, 601-602.—Abstract.—J. F. Dashiell (North Carolina).
1190. Meerloo, A. M. De bureaucratische groepspsychie; een poging tot groepsanalyse. (The bureaucratic group psyche; a trial of a group analysis.) *Mensch en Maatschappij*, 1933, 9, 557-562.—By group analysis the study of individual reactions to the sphere of certain social groups and of the modifications of the individual caused by the group is meant. The group of officials is an important social group; it has a particular influence on its members; it brings a series of qualities of the individual to the fore. The character of the group is formed by the sum of the qualities of the members. The official is protected by prescriptions and laws, by a fixed salary and a pension. The too great security produces a danger of a certain passivity and of a simulated infirmity. Then there is a tendency to hide certain qualities towards the superiors and to show only those qualities which are supposed to be right in the eyes of the superiors. In the third place the higher official has a rather great power over the inferior one. The mutual suspicion is an important factor which often prevents cooperation. These principles are to be found in a number of traits of the official world. It is desirable that the individual takes the influence of the group into account; it is, however, quite difficult to escape from it without rousing a hostile feeling of the group.—C. Rothe (Koloniale Instituut).
1191. Miles, C. C. Age and certain personality traits of adults. *Psychol. Bull.*, 1933, 30, 570.—Abstract.—J. F. Dashiell (North Carolina).
1192. Perry, R. C. Analysis of group factors in certain adjustment questionnaires. *Psychol. Bull.*, 1933, 30, 598.—Abstract.—J. F. Dashiell (North Carolina).
1193. Reibel, H. Ueber sekundäre Typen. (On secondary types.) *Zsch. f. Psychol.*, 1933, 130, 90-95.—Within the limits of any adult type the distinction may be drawn between primary and secondary types. Those cases are considered as primary in which the typical structure seems to be determined by the presence of an immanent structural plan which gradually unfolds. Secondary types are those cases in which an original structure may be distinguished from a present structure which has been evoked by later constellations. Secondary types feel very definitely the break between the two stages.—R. B. MacLeod (Swarthmore).
1194. Taylor, H. R. The scholastic significance of certain personality traits. *Psychol. Bull.*, 1933, 30, 600.—Abstract.—J. F. Dashiell (North Carolina).
1195. Thurnwald, R. Die Persönlichkeit als Schlüssel zur Gesellschaftsforschung. (Personality as a key for investigating society.) *Sociologus*, 1933, 9, 257-272.—The personalities of the individuals composing a social group must be studied in order to understand that group; its form and function cannot be explained by any mystical structures or group forces.—E. Fehrer (Bryn Mawr).
1196. Vernon, P. E. The biosocial nature of the personality trait. *Psychol. Rev.*, 1933, 40, 533-548.—Personality traits must be studied subjectively. A rigidly objective approach is barren. But since every observer's reactions to and notions of a given individual's traits, i.e., his "schema," differ in terms of his own personality and his limited knowledge and prejudices, traits must be considered biosocial, rather than biophysical. This is especially true of personality traits. They depend on the context; they are ill-defined; they represent relative differences between the person and the particular social group. It is impossible rigidly to isolate or separate them from a person's total integrated reactivity. They overlap. Apparent inconsistencies in personality are due to the over-simplifications introduced by applying stereotyped trait names.—A. G. Bills (Chicago).
1197. Watson, G. B. Tests of personality and character. *Rev. Educ. Res.*, 1932, 2, 183-270.—The plan of the present review involves a critical discussion, under the appropriate heading, of the historical development of a test, the applications which have been made, and a list of published test blanks in cases where these are appropriate. The author hopes that such an analytical review will lead to the development of improved character tests which will recognize character more largely as a cultural entity than as a physiological pattern, and will necessarily define the civilization in which the results are obtained and also demonstrate differences in correlation with

differences in social life. The values sought and the means of seeking them will be understood to vary with the culture.—H. W. Karn (Clark).

[See also abstracts 890, 1034, 1036, 1076, 1082, 1270, 1285, 1311, 1379, 1405, 1412.]

#### SOCIAL FUNCTIONS OF THE INDIVIDUAL

1198. Adler, A., Wolfe, W. B., Burns, C. L. C., & Young, J. C. *Individual psychology and social problems*. Volume I. Boston: Bruce Humphries, 1932. Pp. 62.—A collection of essays, some of which have been read as papers, on *The Meaning of Life* (Adler); *The Paradoxical Jew* (Wolfe); *Philosophical Implications of Individual Psychology* (Young); and *The Criminal Personality and Its Cure* (Adler). Notes and news of the working of the society, reviews and book notices, a list of books in English, and a list of the officers and offices of the society are appended to the collection.—O. L. Harvey (Research Dept., State Prison Colony, Norfolk, Mass.)

1199. Armstrong, C. P. *Juvenile delinquency as related to immigration*. *Psychol. Bull.*, 1933, 30, 554-555.—Abstract.—J. F. Dashiell (North Carolina).

1200. Baranova, F., Golahovskaya, A., Tohri, B., & Rahmatullina, S. [The question of the representation in pictures of the space and size of objects.] *Psikhol.*, 1932, No. 4, 23-53.—A. Yarmolenko (Leningrad).

1201. Baranova, F., Golahovskaya, A., Tohri, B., & Rahmatullina, S. [The question of representation of colors in illustrations.] *Psikhol.*, 1932, No. 4, 54-63.—A. Yarmolenko (Leningrad).

1202. Bean, C. H. *The psychology of the adherence to the old and of acceptance of the new*. *J. Soc. Psychol.*, 1933, 4, 340-352.—A list of 50 statements arbitrarily classified as conservative or progressive was submitted to a group of students and their parents, with instructions to indicate their approval or disapproval. The results for 450 university students, 100 normal school students and 300 parents are reported. Slight and statistically insignificant trends were found for advanced students to be more progressive than beginning students, for women to be less conservative than men, for better educated parents to be less conservative, and for the younger people to be more progressive. Other relations to size of home community, intelligence and school achievement were confused or insignificant.—E. B. Newman (Harvard).

1203. Bergman, R. *Familienstimmung und Nervenzustand. Die Rolle der Nerven im Lebenskampf. Die Macht der Frau im Familienkreis*. (Family accord and nerve status. The role of nerves in the life struggle. The power of the woman in the family circle.) *Vjsch. f. Jugendk.*, 1933, 3, 152-156.—The functional state of the nervous system conditions all muscular and ideational activity and determines the success or failure of nations and individuals. Neurotic disorders grow out of feelings of anxiety which are latent in the child and ready to appear even at an early age with the realization of being alone and

unprotected. One can combat this native anxiety tendency only by the sense of security which comes uniquely from existence in a family circle, especially one in which a mother's love is felt.—M. Lee (Chicago).

1204. Bills, A. G. *Stuttering and mental fatigue*. *Psychol. Bull.*, 1933, 30, 578.—Abstract.—J. F. Dashiell (North Carolina).

1205. Blaustein, L. *Przyczynki do psychologii widza kinowego*. (Contributions to the psychology of the cinema spectator.) *Kwart. psychol.*, 1933, 4, 192-236.—A description of the aggregate of experiences of a cinema spectator who watches productions of modern film technique, with special consideration given to the sources of pleasure which he experiences.—T. M. Abel (Sarah Lawrence).

1206. Blumer, H. *Movies and conduct*. New York: Macmillan, 1933. Pp. 257. \$1.50.—The author presents a study of the relation of movies to conduct based on college and grade school students. The material was collected by having the student write a narration of his motion-picture experiences, and by questionnaires, personal interviews, direct observation, and studies of conversations on movie subjects. The results show that imitation of movie situations, ideals, mannerisms, and modes of conduct is frequent and that attitudes and notions of rights and privileges may be implanted. Fantasy and emotion in relation to the movies are also discussed.—W. S. Hunter (Clark).

1207. Blumer, H., & Hauser, P. M. *Movies, delinquency, and crime*. New York: Macmillan, 1933. Pp. 233. \$1.50.—The authors have used the methods of personal interview and autobiography with a large number of young delinquents, ex-convicts, grade-school and high-school children with the purpose of revealing the effects that movies have on delinquents and non-delinquents. The results show that movies were an important factor in the delinquent careers of 10% of the males and 25% of the females. In addition the authors point out the great complexity of the problem of movie influence in its relation to personal and social factors.—W. S. Hunter (Clark).

1208. Bogen, D. *The significance of tonal memory and sense of pitch in musical talent*. *Psychol. Bull.*, 1933, 30, 598-599.—Abstract.—J. F. Dashiell (North Carolina).

1209. Boodin, J. E. *Group participation as the sociological principle par excellence*. *Pub. Univ. Calif. Los Angeles Educ., Phil., & Psychol.*, 1933, 1, 1-46.—R. R. Willoughby (Clark).

1210. Bührig, H. *Gabriele d'Annunzio*. (Gabriel d'Annunzio.) *Tijdsch. v. wetensch. graphol.*, 1933, 5, 111-118.—Detailed analysis of the handwriting of the Italian poet and politician.—S. H. Newman (Clark).

1211. Cabot, R. C. *The meaning of right and wrong*. New York: Macmillan, 1933. Pp. x + 463. \$2.50.—This textbook on ethics is divided into (A) Right (I Principles, II Applications, III Integrations—7, 5 and 2 chapters respectively); (B) Wrong (4 chapters); (C) Implementation (3 chapters);

and (D) Supermorals (1 chapter). Stress is placed upon (1) agreements, (2) interests or desires, (3) needs, (4) self-deceit; an attempt is made to draw examples for the illustration of these from current concrete problems. Consistency and growth are held to be the central ethical principles, and self-deceit the chief source of ethical error. Appendices consider some unsolved ethical problems, definitions, and 54 declarations of war (1914-1918).—R. R. Willoughby (Clark).

1212. Carelli, A. Sui fattori della delinquenza giovanile. (On the factors in juvenile delinquency.) *Maternità e infanzia*, 1932, No. 6, 664-666.—The author discusses the results obtained from an investigation carried out on children confined in an American delinquency institution, the questions studied being the degree of intelligence of the children, the mechanical ability, and the amount of education previously received.—R. Calabresi (Rome).

1213. Cavalcanti, P. Investigações sobre as religiões no Recife. (Investigations concerning the religions of Recife.) *Arq. assist. a psicopat. de Pernambuco*, 1933, 3, 58-63.—Several modes of religious worship are considered. These, being of an extremely naïve, mystical, and inferior type, are conducive to the development of morbid manifestations of "psychological automatism." This conclusion is approached from the standpoint of theories of the subconscious.—R. M. Bellows (Ohio State).

1214. Charters, W. W. Motion pictures and youth, a summary. Bound with Holaday, P. W., & Stoddard, G. D. *Getting ideas from the movies*. New York: Macmillan, 1933. Pp. 66 & 102. \$1.50.—The first study, by Charters, attempted to find answers to such questions as the following: What sorts of scenes do the children of America see when they attend the theaters? How do the mores depicted in these scenes compare with those in the community? How often do children attend? How much of what they see do they remember? What effect does what they witness have upon their ideals and attitudes? Upon their sleep and health? Upon their emotions? The general conclusions were reached that the motion picture, as such, is a potent medium of education, the content of current pictures is not good for children, and the motion-picture situation is very complicated. The purpose of the second study, by Holaday and Stoddard, was to measure the retention of film content and the changes in quantity and accuracy of general information. The retention of the material was quite high, and comparisons were made with some of the data on learning in experimental psychology.—H. Cason (Wisconsin).

1215. Crawford, L. S. Philosophy and liberal religion. *Psychol. Bull.*, 1933, 30, 613.—Abstract.—J. F. Dashiell (North Carolina).

1216. Dearborn, W. F. Structural factors which condition special disability in reading. *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, 38, 268-283.—On the basis of experience with cases of reading disability the author finds a very small proportion of the cases of congenital word blindness due to cerebral defects,

and points out the importance of such factors as auditory difficulties (both central and peripheral), intellectual variations (including kinesthetic deficiencies and peculiarities), and pure habits, which are complicated in many cases by neurotic backgrounds. Cases are cited. Manual and ocular dominance were studied in 100 cases of dyslexia, and these percentages compared to those of unselected public-school children. On the basis of these figures and experience the thesis is proposed that "the preponderance in the clinical cases of left-eyedness and of crossed and mixed conditions [of dominance] warrants an account in these objective terms of the etiology of dyslexia." Treatment consists "in a few weeks of individual attention and training to establish the sense of direction in which reading proceeds." Spelling out words orally, tracing out the forms of letters and words with the finger as the words are pronounced, and learning to read by typewriting are some of the methods of correction.—M. W. Kuenzel (Mooseheart Laboratory for Child Research).

1217. De Sanctis, S. La criminalità per tendenza. (Criminality produced by tendencies.) *Giustizia penale*, 1933, 39, 1-28.—"La criminalité tendancielle" is considered in relation to its imputability. Its existence is shown by the fact that one recognizes in various crimes an instinctive and tendency-suggesting character with the probability that an individual characterological variation is involved or that the tendency results from a casual factor. In cases where it is not possible to establish this casual factor, the criminal must be charged. The author discusses the concept of the criminal "tendenciel" in comparison with that of the born criminal (Lombroso) and with that of the criminal constitution and gives an outline of the differential psychology of the former type.—R. Calabresi (Rome).

1218. Farnsworth, P. R. Concerning cross rhythms. *School Music*, 1933, 33, No. 166, 11-12.—Returns from over 150 music schools indicate that the majority give no special training in the mastery of cross rhythms. Those which give special instruction in this field follow the Dalcroze (kinesthetic) procedures, a counting method, or some mixture or modification of these. The author presents a new Gestalt method in which the cross rhythms are presented by player piano or phonograph. The pattern of the cross rhythms can be directly perceived without the necessity for counting or drill on the separate rhythms.—P. R. Farnsworth (Stanford).

1219. Ferguson, L. W. Two considerations concerning the construction and the use of attitude scales. *Psychol. Bull.*, 1933, 30, 597.—Abstract.—J. F. Dashiell (North Carolina).

1220. Fernald, G. M. A study of reading disability in adults. *Psychol. Bull.*, 1933, 30, 595.—Abstract.—J. F. Dashiell (North Carolina).

1221. Gault, R. H. Eliminating hearing in experiments on the tactual interpretation of speech and music. *Psychol. Bull.*, 1933, 30, 575-576.—Abstract.—J. F. Dashiell (North Carolina).

1222. Gemelli, A., & Pastori, G. Quelques recherches sur la nature des voyelles. (Some investigations on the nature of vowels.) *Arch. ital. de biol.*, 1933, 89, 76-94.—The results of a systematic study of Italian vowels by a new electrical method are reported.—H. W. Karn (Clark).

1223. Harris, M. S. The sophistic attitude in art appreciation. *Psychol. Bull.*, 1933, 30, 614.—Abstract.—J. F. Dashiell (North Carolina).

1224. Hevner, K. The mood effects of the major and minor modes in music. *Psychol. Bull.*, 1933, 30, 584.—Abstract.—J. F. Dashiell (North Carolina).

1225. Hughes, T. H. The new psychology and religious experience. London: Allen & Unwin, 1933. Pp. 332. 10/6.—The "new" psychology dealt with is that of behaviorism and, more particularly, psychoanalysis and its derivatives. After an expository first part, the book deals with projection and the reality of God; the instincts and the religious life; the religious consciousness and experience; the consciousness of sin; conversion; the place and power of religion; and the new psychology and Christianity. The general position is that while recent discoveries and theories in psychology have thrown much valuable light on the determinants of religious experience, the latter expresses a reality and a value that cannot fully be put into historical terms.—F. C. Bartlett (Cambridge, England).

1226. Jacobsen, O. I. The use of talent tests in public school music. *School Music*, 1933, 33, No. 166, 9-10.—A series of warnings concerning the use of "talent" tests.—P. R. Farnsworth (Stanford).

1227. Kinter, M. The measurement of artistic abilities. (A survey of scientific studies in the field of graphic arts.) New York: Psychological Corporation, 1933. Pp. 90.—This monograph was prepared by the Carnegie Corporation. It includes a survey of published tests with related information on artistic appreciation, artistic ability, and drawing scales. Attempts made to study personality and temperament of artists are summarized. Special sections consider investigations now in progress, problems in need of investigation, and the use of tests in schools and in vocational guidance.—R. S. Schultz (Psychological Corporation).

1228. Kirk, K. E. Conscience and its problems; an introduction to casuistry. (Rev. ed.) New York: Longmans, 1933. Pp. 435. \$4.00.—R. R. Willoughby (Clark).

1229. Kramer, F., Leppmann, F., Marcuse, M., Placzek, S., & Plaut, P. Psychiatrische Gutachten über kriminelle Jugendliche [Minderjährige] und jugendliche Zeugen. III. Gutachten im F.-Prozess. (Psychiatric opinions upon criminal juveniles [minors] and juvenile witnesses. III. Opinions in the F. trial.) *Zsch. f. Kinderforsch.*, 1931-32, 39, 309-439.—Psychiatric opinions regarding the credibility of the testimony concerning incestuous relations with the father offered by two young girls, one of them accusing, the other defending him in the original indictment.—K. C. Pratt (Michigan Central State Teachers College).

ment.—K. C. Pratt (Michigan Central State Teachers College).

1230. Larson, J. A., & Gibbons, H. Psychological integration as a therapeutic approach in the study of speech disorders. *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, 38, 149-160.—In order to analyze and treat speech symptoms the factors making for the dissociation of the psychobiologically integrated personality must be determined. A diagnostic method for this is offered which involves the testing of: (1) comprehension of spoken words, (2) verbal facility, and (3) articulation. Case studies are cited.—M. W. Kuensel (Mooseheart Laboratory for Child Research).

1231. Leppmann, F. Psychiatrische Gutachten über kriminelle Jugendliche [Minderjährige] und jugendliche Zeugen. II. 4 Gutachten über Fritz M. (Psychiatric opinions upon criminal juveniles [minors] and juvenile witnesses. II. Four opinions concerning Fritz M.) *Zsch. f. Kinderforsch.*, 1931-32, 39, 199-225.—Psychiatric opinions, requested by the court, concerning the sanity of a 19-year-old youth tried for the murder of a brother and his friend.—K. C. Pratt (Michigan Central State Teachers College).

1232. Leuba, J. H. God or man? New York: Holt, 1933. Pp. xii + 338. \$2.75.—Leuba here presents a climax to his several books on the psychology of religion. The point he endeavors to make is that God and the religions are worn out superstitions which not only can be displaced with profit by more adequate and scientific substitutes but are reactionary and positively harmful. He distinguishes between religion and religions. The latter are systems of outgrown formalism, yet they contribute something of method and purpose to an ethical culture worthy of the term religion. He distinguishes between God as a philosophic first cause and the social God with whom his worshipers fraternize. The latter he regards as a product of human imagination and without objective reality. In the last chapter on *The Replacement of the Religions* he brings to a point a discussion of the moral forces to be substituted for the church, the value of prayer, and the conventional church attitude in a way which defines his position for the convenience of both supporters and critics. The body of the book is taken up largely with a broad range of data on psychical forces, psychotherapy as compared with divine healing, intuition, inspiration, and the experiences of the mystics. A persistent and intensive argument is presented to show that religious experiences may be explained without recourse to the supernatural.—J. P. Hylan (Stoneham, Mass.).

1233. Lindsley, C. F. Psycho-physical determinants of individual differences in voice quality. *Psychol. Bull.*, 1933, 30, 594.—Abstract.—J. F. Dashiell (North Carolina).

1234. Lugiatto, L. I personaggi della "Divina Commedia" visti da un alienista. Parte I-II. (The characters of the *Divine Comedy* as seen by an alienist. Parts I-II.) (Vol. 2.) Pp. 192. Rome: Tip. Osp. Psich. Prov. di Milano in Mombello di Limbiate,

1932. L. 30.—The author gives a psychological interpretation of the songs and characters of the *Divine Comedy*. In following the development of the poem, the author comments on those parts which are most susceptible to medico-psychological interpretation, taking into consideration not only the point of view of a modern psychologist but also the psychological and medical information of the time of Dante.—*R. Calabresi* (Rome).

1235. Lundberg, G. A. Is sociology too scientific? *Sociologus*, 1933, 9, 298-320.—In answering a criticism that sociology is in danger of becoming a dead science largely due to its invasion by the spirit and methods of the natural sciences, the author asserts that any detrimental effect is due to the misapplication of scientific method. Rather, sociology is a legitimate field for the application of these methods. What is needed most today is a more refined and objective definition of units and concepts, more adequate symbols to represent them, and better standardization of procedure for the verification of observations.—*E. Fehrer* (Bryn Mawr).

1236. Maietti, M. La delinquenza dei minorenni e "il buon giudice italiano." (The delinquency of minors and "the good Italian judge.") Rome: Tip. Camere dei Deputati, 1932. Pp. 166. L. 15.—*R. Calabresi* (Rome).

1237. Maller, J. B. Psychological and social characteristics of metropolitan neighborhoods. *Psychol. Bull.*, 1933, 30, 554-555.—Abstract.—*J. F. Dashiell* (North Carolina).

1238. Meggendorf, F. Ueber die Behandlung der Sexualverbrecher. (The treatment of sexual criminals.) *Psychiat. Neur. Woch.*, 1933, 35, 413-418.—Sexual maladjustment should always make one suspicious of the psychological make-up of the perpetrator; in such cases psychiatric examination always should be made. The problem is considered of great importance in Germany and it has already led to changes of legislation. The writer criticizes the different views about the subject. Psychotherapy is first to be taken into consideration in such cases; castration is to be regarded only as an "ultima ratio." Quite different is the problem whether the sexual criminals are to be regarded—according to the current laws—as legally responsible, or whether they have only diminished responsibility. In any case, besides forensic treatment, a medical one is also to be provided.—*P. Plaut* (Berlin).

1239. Moll, A. *Libido sexualis*. New York: American Ethnological Press, 1933. Pp. 380. \$6.00.—This book undertakes to discuss the laws of psychosexual behavior and to illustrate them by use of clinical histories.—*M. H. Erickson* (Worcester State Hospital).

1240. Moreno, J. L. Psychological and social organization of groups in the community. *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, 38, 224-242.—A sociometric test devised to measure in mathematical fashion the psychological properties of populations is applied to the study of the group organization of

over 2000 school children and to a community organization in a state training school of 500 to 600 persons. The position of the individual in a group is determined by requiring him to choose his associates. Illustrations are furnished of sociograms which map out the relations of individuals in a group; the resulting psychological currents provide pictorially the psychological geography of the community. Results indicate that psychological structures of groups differ widely from their social manifestations; that structures vary directly with the age of their members; that groups differing in function also differ in structure; that people would group themselves differently if they could, and that this in turn is reflected in the conduct of both the individual and the group.—*M. W. Kuensel* (Mooseheart Laboratory for Child Research).

1241. Murphy, E. F. *New psychology and old religion*. New York: Benziger, 1933. Pp. 278. \$2.50.—*R. R. Willoughby* (Clark).

1242. Ninck, J. Twee geslaagde kunstenaars. (Two successful artists.) *Tijdsch. v. wetensch. graphol.*, 1933, 5, 119-126.—Analysis of the handwriting of the composer Gluck and of the painter Boucher, with special reference to the indications of their avarice.—*S. H. Newman* (Clark).

1243. Pende, N. Normalità razziale e regionale nelle valutazioni biometriche. (Regional and racial normality in biometric evaluations.) *Riforma med.*, 1932, No. 43, 1623-1633.—The author affirms the practical importance of the concept of normality of race and of the biometry of races for the evaluation of individuality and for the application of biology and individual psychology to social and political biology.—*R. Calabresi* (Rome).

1244. Peters, C. C. *Motion pictures and standards of morality*. Bound with *Dysinger, W. S., & Ruckmick, C. A. The emotional responses of children to the motion picture situation*. New York: Macmillan, 1933. Pp. v + 285; xiii + 122. \$2.00.—Peters describes a technique used to measure the amount of divergence of commercial motion pictures from current standards of morality. Scales for measuring the mores were developed by having 187 adults arrange described bits of conduct in hierarchical order according to "goodness" or "badness." Numerical values were determined statistically and attached to each item. Mores of 13 different social groups were measured and compared in preparation for rating the pictures. From 3 to 5 persons rated 184 pictures according to particular scenes and not as wholes. Reliabilities of rating were high. Four phases of conflict between the mores and movies were analyzed. Movies were found to oppose present values regarding aggressiveness of girls in love-making; they parallel life from the standpoint of both approvals and practices in respect to kissing; they surpass mores in respect to democratic attitudes and practices; and finally they challenge admiration in respect to their treatment of children by parents. Moral profiles showing the character of pictures can be drawn by means of these scales. These may prove to be of advertising value. Suggestions for further study are

offered. Analysis was also made of the motives to which appeal is made in advertising motion pictures.—*M. W. Kuenzel* (Mooseheart Laboratory for Child Research).

1245. **Peterson, R. C., & Thurstone, L. L.** *Motion pictures and the social attitudes of children.* New York: Macmillan, 1933. Pp. 75. \$1.50.—The authors studied the effects of motion pictures on the attitudes of children toward nationality, race, crime, the punishment of criminals, and prohibition. The influence of pictures on the child's attitude scale was most evident in the case of the attitude toward negroes as a result of seeing *The Birth of a Nation*. The results show that pictures may have a cumulative effect on attitudes and that the change in attitude may be detected after intervals of from 2½ to 19 months.—*W. S. Hunter* (Clark).

1246. **Powdermaker, H.** *Life in Lesu.* New York: Norton, 1933. Pp. 352. \$4.00.—A study, on the same lines as those of Malinowski, Mead, and Fortune, of an island society in the New Ireland group. Careful descriptions and interpretations are offered of material under the following topics: social organization; infancy; childhood; initiation rites; marriage; work; sexual life; knowledge, magic, and religion; the individual and society. Appendices give a glossary and a chart of intermarriages between clans, and there are several photographs of the daily and ceremonial life of the people and diagrams of the village itself and of the kinship terms.—*R. R. Willoughby* (Clark).

1247. **Rabelo, S.** *Características do desenho infantil.* (Characteristics of infantile drawing.) *Bol. Deretoria Tecn. de Educ.*, 1932, 15ff.—1300 children of 4 to 16 years were observed in order to determine the type of material which they were inclined to draw. Inferences were made as to the ideas and motives which govern child activity. Children of 4 and 5 years tended to draw dolls, while houses were the preference for those of 6 to 13 years. Boys were inclined to draw animals, while houses dominated the activity of the girls. A spontaneous type of activity was observed in children between the ages of 6 and 9 years. The material was analyzed for the genetic appearance of appreciation of humor, manual coordination, and logical application.—*R. M. Bellows* (Ohio State).

1248. **Radakovic, K.** *Psychologie der Entstehung und Entwicklung des Christentums.* (The psychology of the genesis and development of Christianity.) *Zsch. f. Religionspsychol.*, 1933, 6, 114-131.—Considers the mystery of the Christian doctrine and its effect on the inner experience of the founders of the Christian religion as well as the tremendous impression which this experience has made on children and disciples, with particular reference to the experience of the connection of the individual with God.—*E. H. Kemp* (Clark).

1249. **Robinson, E. S.** *Trends of the voter's mind.* *J. Soc. Psychol.*, 1933, 4, 265-284.—A list of 24 statements taken from party platforms or campaign speeches during the recent presidential campaign was prepared and submitted to a varied group of

voters shortly before the election in November, 1932. In addition, the voters were asked to indicate their choice of candidates in the coming election. The attempt was then made to determine whether the approval or disapproval of these issues correlated with the voter's choice. 8419 replies were obtained from five occupational groups. Only one issue was found which qualitatively distinguished the Republican voters, that is, an issue which was approved by a majority of the Republicans and which was disapproved by a majority of the other voters. The remaining statements approved by the Republicans all found assent, although by smaller majorities, among the Democratic voters. More distinct differences of opinion were found in the case of those supporting the Socialist candidate, particularly among the professional and semi-professional classes.—*E. B. Newman* (Harvard).

1250. **Robinson, W. J.** *Sexual impotence.* (Rev. ed.) New York: Eugenics Pub. Co., 1933. Pp. 542. \$3.00.—*R. R. Willoughby* (Clark).

1251. **Rohden, F. v.** *Vierte Tagung der Kriminalbiologischen Gesellschaft.* (Fourth session of the Criminal-Biological Society.) *Vjsch. f. Jugendk.*, 1933, 3, 156-160.—Three papers are reported which were presented at the meeting of the society in June. Di Tullio of Rome spoke on the education of the juvenile delinquent. He classified young criminals as opportunity and inherent criminals. Criminality can be suppressed only if proper educational measures are taken in early youth. Mothers especially must understand criminal tendencies in children. Education of the educators is being undertaken in Rome, and in the schools physicians trained in pedagogy not only study the children but advise parents in their upbringing. Villinger of Hamburg discussed the relation of unemployment to crime. He distinguished between those unemployed through their own fault and others. He recommended the following measures to improve present conditions: eugenics, reestablishment of the German family, reformation of education—restoring authority and obedience for personal liberty, improved education in charitable institutions, work for all youths. Seelig of Graz dealt with methods of study. The cause of a crime is never wholly exogenous, though there is usually a precipitating stimulus. The native tendency preexisted and was susceptible of modification through early influences. On this is based any hope in the fight against crime.—*M. Lee* (Chicago).

1252. **Schmidt, G.** *Die Verwandtschaft der sozialen und psychischen Bedingungen in England und Italien zur Zeit der Hochrenaissance.* (The relationship of social and psychical pre-conditions in England and Italy during the high renaissance.) *Sociologus*, 1933, 9, 276-298.—The author points out the marked resemblances between Italians and English living during the Renaissance in various psychological traits, attributing these to resemblances in the racial, geographical, and historical backgrounds of the two peoples.—*E. Fehrer* (Bryn Mawr).

1253. Seelig, E. *Jugendliche Brandleger*. (Juvenile incendiaries.) *Vjsch. f. Jugendk.*, 1933, 3, 160-168.—Five cases of incendiarism among 25 juvenile delinquents, studied intensively at the Graz house of correction, are reported to show the interrelation of innate tendencies and environment in the development of personality and causation of criminal acts. Two are primitively organized individuals who in the struggle to escape restrictions are ready to employ any means to reach their goal. The third is a case of pyromania, the fourth one of primitive reactions in addition to criminal tendencies, the fifth—an unusual type—is to be attributed entirely to the environment. At his father's instigation a boy of good intelligence and normal emotional habitus set fire to his neighbor's house and his own in order to obtain the insurance. The author finds no support here for Adler's conception of such acts as manifestations of over-compensation for feelings of inferiority.—*M. Lee* (Chicago).

1254. Shaw, C. R. *Juvenile delinquency—a group tradition*. (Child Welfare Pamphlets No. 23.) *Bull. State Univ. Iowa, New Ser.*, 1933, No. 700. Pp. 14.—Delinquency in most cases is a form of group activity. Various forms of delinquent conduct, especially stealing, are in large part a product of the social and cultural life of the groups of which the delinquent is a member. Viewed from the standpoint of the cultural patterns of his group, the delinquent's behavior in many cases is an approved form of conduct, although it is an offense against the laws of the larger social order. Presumably the fundamental social wishes or desires of the members of delinquent and non-delinquent groups are of the same character, although their overt forms of expression may vary widely.—*B. Wellman* (Iowa).

1255. Shaw, C. R. *Juvenile delinquency—a case history*. (Child Welfare Pamphlets No. 24.) *Bull. State Univ. Iowa, New Ser.*, 1933, No. 701. Pp. 11.—In certain deteriorated sections of the city the play group may almost completely supersede the family as an agency for the control and direction of boys' activities. This group may represent the only moral order with which the boy is intimately familiar and may serve as the chief source from which patterns of behavior are acquired. Most juvenile offenses which appear in juvenile court are committed by groups of boys and few by individuals singly. Techniques and patterns of behavior are transmitted within delinquent groups in much the same way as any cultural form is disseminated through society.—*B. Wellman* (Iowa).

1256. Shuttleworth, F. K., & May, M. A. *The social conduct and attitudes of movie fans*. Bound with Peterson, R. C., & Thurstone, L. L. *Motion pictures and the social attitudes of children*. New York: Macmillan, 1933. Pp. 142 and 75. \$1.50.—The authors report a study based on two carefully equated groups of children from grades 5 to 9, one group visiting the movies two or more times a week and the other group once a month or less. "That the movies exert an influence there can be no doubt. But it is our opinion that this influence is specific for a

given child and a given movie. The same picture may influence different children in distinctly opposite directions. Thus in a general survey such as we have made, the net effect appears small. We are also convinced that among the most frequent attendants the movies are drawing children who are in some way maladjusted and whose difficulties are relieved only in the most temporary manner and are, in fact, much aggravated. In other words, the movies tend to fix and further establish the behavior patterns and types of attitudes which already exist among those who attend most frequently."—*W. S. Hunter* (Clark).

1257. Stanley, D. M. *Psychology of the spoken word*. Boston: C. G. Vientot, 1933. Pp. 196. \$2.00.—*R. R. Willoughby* (Clark).

1258. Stanton, H. M., & Koerth, W. *Musical capacity measures of children repeated after musical training*. *Univ. Iowa Stud., Ser. Aims Prog. Res.*, 1933, No. 42, New Ser., No. 259. Pp. 48.—The change in musical capacities in children and adults over a three-year-period of musical education and training was studied. 157 adults and 645 children were tested two to four times each on the Seashore series. The children increased in scores, the younger children increasing more than the older children. The authors conclude that the effect of musical training on scores in these tests was negligible. Correlations on retests were "substantial or marked" (between .40 and .70) for groupings of pre-adolescent, adolescent and post-adolescent children and for adults for pitch, time, intensity (except for adults, for whom it was "high"—above .70), and consonance (except for the pre-adolescents, for whom it was "low"—.20 to .40). Tonal memory retests showed "high" correlations for all four groups.—*B. Wellman* (Iowa).

1259. Stauter, J. J., & Hunting, L. M. *An acquaintanceship questionnaire as a test of sociability*. *J. Soc. Psychol.*, 1933, 4, 377-380.—The writers propose as a test of sociability a questionnaire on which were listed 191 social groups, occupations, races, religious and fraternal organizations, etc., with instructions to indicate the number of one's acquaintances within the group in question. Acquaintanceship was defined as mutual recognition and knowledge of names. The test was found to have a reliability by the split-half method of .85. Some evidence for the validity of the test is presented, although it correlates very poorly with Gilliland and Burke's "sociability test" based on ability to associate names and faces. Correlations with intelligence and psychology grades were negligible.—*E. B. Newman* (Harvard).

1260. Stevick, P. R. *A study in feeling of conformity in religion*. *Rel. Educ.*, 1933, 28, 364-369.—For an experimental ground a population of 75,000 was selected, consisting of country and small city inhabitants in the vicinity of the Ozarks. The subjects were selected from a variety of occupations, locations, church memberships and degrees of education. The ages ranged from 17 to 55. In order to test the feeling of conformity in religious beliefs, statements regarding abstract creed taken from a

variety of sects, beliefs about God, Jesus, religious conduct, etc., were submitted and the subjects asked to indicate with black ink their judgment of each statement as to whether it was true, not true, or problematical. Again, with red ink, they were asked to go over their first indications and mark in the same way what they regarded as the belief of the majority of people. The coincidence of the black and red lines showed the subject's estimate of his own conformity with the ideas of the majority. The differences between the lines showed his non-conformity. Results were computed with respect to age, sex, size of community of residence, suggestibility, denominational membership, degree of education, and occupational level. The results were not on the whole pronounced, but the last two variables seemed most closely related to non-conformity.—J. P. Hylan (Stoneham, Mass.)

1261. Thouless, R. H. A racial difference in perception. *J. Soc. Psychol.*, 1933, 4, 330-339.—One of the characteristics differentiating what may be roughly designated as Oriental art from western art is the relative lack of perspective and light and shadow in Oriental painting. The writer suggests that this may be due to actual racial differences in perception, since the differences lie in the direction of greater "constancy" of size, shape and color. The article reports the results of tests of such constancy or "phenomenal regression to the real object" for a group of students from India as compared with a control group of British students. The Indian students revealed a tendency toward such phenomenal constancy significantly higher than the British on both tests. The limited results thus confirm the writer's hypothesis.—E. B. Newman (Harvard).

1262. Tinker, M. A. Use and limitations of eye-movement measures of reading. *Psychol. Bull.*, 1933, 30, 583.—Abstract.—J. F. Dashiell (North Carolina).

1263. Travis, L. E. Dissociation of homologous muscle function in stuttering. *Psychol. Bull.*, 1933, 30, 579.—Abstract.—J. F. Dashiell (North Carolina).

1264. Vernon, P. E. The apprehension and cognition of music. *Proc. Mus. Asso.*, Session LIX, Feb. 9, 1933. Pp. 61-84.—Seven more or less distinct classes of experience are apt "to occur, in varying proportions, in the musical perception of the least to the most musical listener. Firstly, the direct physical and physiological effects. Secondly, the stimulation of trains of ideas and wandering of attention. Thirdly, emotional reactions or interpretations and dramatic visual images. Fourthly, muscular reactions of various parts of the body. Fifthly, many types of synaesthesia, including coloured hearing and absolute pitch. Sixthly, auditory images and intellectual processes. Lastly, the effects of non-musical stimuli, including social and temperamental reactions."—P. R. Farnsworth (Stanford).

1265. Walker, R. Y. Eye-movements of good readers. *Psychol. Bull.*, 1933, 30, 583.—Abstract.—J. F. Dashiell (North Carolina).

1266. Wimmer, A. Vore retspsykiatriske opgaver under den nye straffelov. (Our legal psychiatric problems under the new penal code.) *Ugeskr. f. Laeger*, 1933, 95, 1129-1134; 1153-1160.—The new Danish penal code became a law on January 1, 1933. Wimmer discusses in these two articles the various problems which will face Danish psychiatrists in connection with the new law. The 1933 law (in contrast to the older one of 1866) takes the psychological point of view more than the purely judicial. The State Attorney General has made the following questionnaire on points on which the psychiatrists in the future will have to give their professional judgment: (1) Was the person insane or feeble-minded to a high degree at the time of committing the crime? If so: (2) Is it to be supposed that this mental abnormality would give rise to criminal deeds, and if so, of what kind? If question (1) is answered in the negative, it is asked: (3) At the time the person committed the crime, is it to be supposed that he was in a more or less permanent condition based upon faulty development, weakness, or mental disturbance (including sexual abnormality), not of the kind described under question (1)? If (3) is answered in the negative, it is asked: (4) Is it to be supposed that punishment will have any effect on the criminal? If (4) is answered in the affirmative, it is asked: (5) Is general punishment or incarceration in special prisons for psychopaths advisable? If (4) is answered in the negative: (6) Is it to be supposed that the mental abnormality in the future will manifest itself in crimes, and, if so, of what nature? If (2) or (6) are answered in the affirmative, it is asked: (7a) May the minor expediences contained in paragraph 70 be regarded as sufficient to hinder the delinquent from committing crimes, and if so, what expediences are recommended? (b) May it be supposed that commitment to an institution (with reference to paragraph 70) will be sufficiently effective to keep the delinquent from committing crimes, and what kind of commitment would then be most suitable? Wimmer's articles present a survey of the entire field of psychiatry and crime. For description of feeble-mindedness in the criminal, the following degrees and their IQ's are presented: idiocy, IQ 0-30; imbecility, 30-55; debility, 55-75; the warning is given that the numerical IQ's are indices only within the complete examination.—M. L. Reymert (Mooseheart Laboratory for Child Research).

1267. Wolfle, D. L. A reply to Professor Esper. *J. Gen. Psychol.*, 1933, 9, 241-242.—Comment on some statements made by Esper in *J. Gen. Psychol.*, 1933, 8, 346-381.—H. Cason (Wisconsin).

1268. Young, M. A study of the Gildersleeve musical achievement test. *Psychol. Bull.*, 1933, 30, 598-599.—Abstract.—J. F. Dashiell (North Carolina).

[See also abstracts 774, 839, 888, 950, 1099, 1108, 1112, 1120, 1121, 1139, 1147, 1161, 1195, 1295, 1302, 1310, 1322, 1328, 1358, 1378, 1391, 1400, 1406, 1407, 1408.]

## INDUSTRIAL AND PERSONNEL PROBLEMS

1269. Banissoni, F. **Concetto di volonterosità in psicotecnica.** (The concept of good will in psychotechnics.) *Rass. di med. appl. al lavoro indus.*, 1933, 4. Pp. 7.—Good will, which one may consider generically or specifically for the work in question, has an evident importance for work production. The social character of this psychological problem arises from the fact that an affective attachment to the environment is the first condition of optimal functioning. The social psychology of McDougall and the psychoanalytic theory of positive affectivity and of the instinct of aggression reveal the biological causes in the manifestations of good will for work. The biotypology of Pende and the typology of Jaensch can be applied in the selection of workers according to their generic good will. An experimental psychotechnical test is difficult to secure. The author stresses the necessity of collaboration between the physician, the psychotechnologist, and the master worker.—*R. Calabresi* (Rome).

1270. Beckman, R. O. **Mental perils of unemployment.** *Occupations*, 1933, 12, 28-35.—There are two fundamental factors which affect the feelings, emotions, and actions of the unemployed. These are (1) an emotional state of fear, and (2) the thwarting of the accustomed expressions of the innate human drives. "To the degree in which jobless men and women succeed in eliminating fear, in redirecting their basic drives, and in studying the nature of personality, will they achieve a wholesome, integrated state of mind devoid of conflict."—*S. H. Newman* (Clark).

1271. Beltran, J. **La exploración psicofisiología de los órganos sensoriales en la aviación.** *Med. Argentina*, 1933, 12, 135ff.—Münsterberg's tests for operators is briefly reviewed. The necessity of aptitude tests for aviators as evidenced by performance in the world war is indicated. The advisability of both physiological and psychological examinations is stressed. The basic principles embodied in the Münsterberg tests are applied to the selection of aviators and their mechanics, observers, photographers, and radio operators. The possibility of adequate criteria for such tests is considered. Tests of discriminative reaction time, of "emotive index," and of stamina are indicated.—*R. M. Bellows* (Ohio State).

1272. Bisov, S. A. [The psycho-physiological analysis of apparatus tests.] *Sovet. psikhotekh.*, 1932, No. 5-6, 352-358.—As a concrete example the author analyzes the device of Couvet, and finds that it gives data on the work capacity of the subject.—*A. Yarmolenko* (Leningrad).

1273. Dunlap, K. **Color and form of traffic signals in relation to safety.** *Proc. Highway Res. Board*, 1928, Part I, 63-74.—The author first enumerates several principles of safety and efficiency in driving which have sound bases in psychology and practice. The requirements of signs and signals for the fulfilling of the conditions imposed by these principles are then discussed under 4 heads, viz.: (1) color, (2) form,

(3) position, and (4) rapid visibility. One of the conclusions drawn is that there is a particular need for working out experimentally, by arranging an experimental road crossing at which signs can be tested at different speeds, the following specific problems: (1) the proper means of emphasizing important points; (2) the usefulness of special signs for the "straight ahead" route at intersections; (3) the effect of standard patterns in arrangement on a single sign, as compared with separate signs; (4) the practicability of alphabetical arrangement.—*H. W. Karn* (Clark).

1274. Feller, F. M. **Psycho-dynamik der Reklame.** (Psycho-dynamics of advertising.) Bern: A. Franke A. G., 1932. Pp. 358.—A psychology of advertising on a psychoanalytic basis. Every advertisement has an erotic component. When the erotic content is consciously perceived this impairs the success of the advertisement. Only eroticism expressed by means of symbols, which operate on the unconscious, is favorable for the success of an advertisement. The unconscious symbolic value of certain details in a poster, of colors, and numbers is discussed. The necessity of having an analyst examine an advertisement from this point of view is emphasized. The technique applied in such analysis of advertisements is that of free associations. Examples illustrate the author's point of view.—*M. Rickers-Ovsiankina* (Worcester State Hospital).

1275. Guidi, P., & Vampa, D. **Abilità e variabilità nel produrre.** (Ability and variability in production.) *Organiz. sci. del lavoro*, 1933, No. 2. Pp. 8.—The degree of variability in the daily hourly performance of a worker is symptomatic of his degree of ability, and vice versa. The variability and ability of 24 mechanics in a factory were studied. Variability of the daily hourly performance was in terms of the sigma of each individual series of 16 half-hour periods. Ability was rated in terms of a comparison between the standard time set by the factory for the performance of a task and the time actually taken by the worker. Ability and variability correlated by the Bravais formula to the extent of  $r = -0.803 \pm 0.048$ , i.e. the correlation was rather high and in general it can be said that the very skilled workers gave a highly constant daily hourly performance and vice versa.—*R. Calabresi* (Rome).

1276. Guidi, P., & Vampa, D. **Produttività maschile e produttività femminile.** (Masculine and feminine productivity.) *Organiz. sci. del lavoro*, 1933, No. 3. Pp. 9.—The half-hourly daily performance of male and female workers was studied for the discovery of sex differences and for the distribution of useful energy during the working day. There is a sex difference in productivity to the extent that under the same conditions of work it is not possible or convenient to replace men by women. When women work under the same factory conditions as men, they not only cannot accomplish the same work as men but they must work on a different hourly schedule. Light, simple work of short duration is best suited to women. The curves of female per-

formance are more homogeneous and show less variability than do those for males.—*R. Calabresi* (Rome).

1277. **Husband, R. W.** *Applied psychology*. New York: Harper, 1934. Pp. 654. \$2.90.—This college text is designed to give the students the information on applied psychology which they themselves wish to learn. Four chapters are devoted to vocational guidance; seven chapters to industrial personnel work; one chapter each to college personnel problems, industrial fatigue, scientific management, and labor relations; four chapters to advertising; two chapters to selling; one chapter to psychology, psychiatry, and medicine; two chapters to psychology in law; and one chapter each to athletics, personal physical efficiency and efficiency of study.—*W. S. Hunter* (Clark).

1278. **Husband, R. W.** *The value of the photograph on the application blank*. *Psychol. Bull.*, 1933, 30, 577.—Abstract.—*J. F. Dashiell* (North Carolina).

1279. **Kitson, H. D.** *Definitions in industrial psychology*. *Person. J.*, 1933, 12, 164-165.—Translation from the French of the definitions of terms currently used by personnel workers, as reported by a committee on terminology of the International Conference on Psychotechnics.—*P. Seckler* (Radcliffe).

1280. **Koch, H.** *Untersuchungen über den individuellen Arbeitsrhythmus an Landarbeitern*. (Studies of individual work rhythms in agricultural workers.) *Psychotechn. Zsch.*, 1933, 8, 89-95.—This is a section of a series of studies on individual work rhythms in agricultural work. Individual work rhythms were studied in connection with sowing fertilizer, loading wheat, thrashing, cutting tops from sugar beets, mowing grass, and digging potatoes. Both men and women workers were tested, and individual work rhythms were found. These rhythms differ from worker to worker, but seem to remain constant from one work period to another and from task to task. The characteristics of an individual's work rhythms may in time be made a basis for employment selection. Those workers who, for a given task, express the most fitting and most natural rhythms, should be selected to perform that task, since unnatural rhythms only hinder efficiency. Furthermore, methods of work should be developed to be in harmony with natural rhythms.—*C. Burri* (Chicago).

1281. **Kogan, M. V.** [Some psychotechnical tasks in technical normalization.] *Sovet. psikhotekh.*, 1932, No. 5-6, 329-340.—Some questions are formulated which connect psychotechnics and technical normalization. From examples from the author's practice ways are shown for the further investigation of this problem.—*A. Yarmolenko* (Leningrad).

1282. **Marzi, A.** *La psicotecnica nelle piccole aziende industriali*. (Psychotechnology in small industries.) *Boll. Sindacato Fascista Inf. di Firenze*, 1933, No. 4, 5.—It is believed in general that psychotechnology can be usefully applied only in large factories. The author believes on the contrary that

small industries may find an increased labor output with a serious selection of workers because with a small number of workers it is all the more necessary to choose each according to his aptitude.—*R. Calabresi* (Rome).

1283. **Moede, W.** *Konsum-Psychologie*. (Psychology of consumption.) Charlottenburg: Buchholz & Weisswange, 1933. Pp. 83. 1.50 RM.—The need of the present time necessitates economy in all business operations. Business managers must understand the psychology of the consumer in order to avoid mistakes of marketing and selling. The writer publishes the results of his studies in this field extending over a period of 10 years upon the request of leading German business houses.—(Publisher's abstract).

1284. **Moore, H.** *The Institute's clerical test in America*. *Human Factor*, 1933, 7, 407-409.—The clerical tests devised by the National Institute of Industrial Psychology were slightly changed for use in the United States and given to 700 cases. The median, range, and shape of distribution (skewed or normal) are given for each of the seven tests in the battery. In two Springfield (Mass.) firms, correlations of .87 on 18 cases and .94 on 26 cases were found between rankings of clerks and test results.—*A. K. Kurtz* (Procter & Gamble Co., Ivorydale, Ohio).

1285. **Petrov, P. M.** [The correlation between work efficiency and character.] *Sovet. psikhotekh.*, 1932, 6, 429-510.—The experimental method, the data and results of the experiments, and the value of proposed methods in psychotechnical practice are given.—*A. Yarmolenko* (Leningrad).

1286. **Schwartz, S.** [Psychology and book type.] *Psikhol.*, 1932, No. 1-2, 145-162.—Investigating the perception of the text of books with various types and length of line, the authors have found on different levels of reading habit different laws of perception. The print and its type and size must be different for beginners and expert readers.—*A. Yarmolenko* (Leningrad).

1287. **Takahashi, H.** *Über den Einfluss der Beleuchtung auf die Arbeitsleistung*. (The influence of illumination on work performance.) *Jap. J. Psychol.*, 1933, 8, 153.—With German abstract.—*R. R. Willoughby* (Clark).

1288. **Uhrbrock, R. S.** *Industrial jobs for psychologists*. *Science*, 1933, 78, 508.—In view of the probability that academic positions will be reduced in number, the author suggests that the young psychologist establish connections with a firm in any capacity and then proceed to develop the psychological aspects of his work.—*R. R. Willoughby* (Clark).

1289. **Winkler, K.** *Prüfung der Eignung für anstrengende Seharbeit*. (Testing aptitude for performing strenuous visual work.) *Psychotechn. Zsch.*, 1933, 8, 69-79.—This is essentially an investigation of the fatiguability of the eyes. The purpose of the study is to determine individual differences in fatigue effects from continuous performance of exacting visual work over a period of several hours. Two groups of subjects had to trace various patterns on cards filled

with dots. These dots were arranged to form various degrees of complexity of pattern. Efficiency was measured in terms of the amount performed during a given time and the number of errors made, together with the subjects' introspections. It was found that prolonged and strenuous visual work results in lowered output, twitching of the eyes, and headaches. These effects differ greatly from individual to individual. However, these differences are due not so much to differences in the anatomical and physiological construction of the eye as to differences in the workers' efforts and their *Einstellung* to the task. After exempting old people, age had no effect on visual efficiency. The author concludes that under no conditions should long periods of visual work be carried on without interpolating frequent rest pauses.—C. Burri (Chicago).

1290. Zalkind, E., Ponisovskaya, A., & Finkel, J. [The psychoneurological investigation of the miners of the mine "October Revolution."] *Sovet. neuropatol.*, 1932, 1, 465-478.—A. Yarmolenko (Leningrad). [See also abstracts 809, 884, 965, 1011, 1297, 1363.]

#### EDUCATIONAL PSYCHOLOGY

1291. Anderson, V. V. Mental hygiene in education. *Ment. Health Observ.*, 1933, 2, No. 1; 7-8.—The author believes that the biggest need at the present time from the point of view of mental hygiene in education is for the adequate selection, training, placement and development of teachers. Discussing the importance of mental hygiene in the educational program, he points out that although parents cannot be selected much can be done in the direction of selecting well-adjusted individuals for teachers and in the training of these individuals.—P. Seckler (Radcliffe).

1292. [Anon.] Australian Council for Educational Research. Third annual report, 1932-1933. Melbourne: Brown, Prior & Co., 1933. Pp. 35.—This report contains the transactions, publications, projects, etc., of the council for the year.—P. Seckler (Radcliffe).

1293. Bernabei, M. L'educazione del sesso. (Sexual education.) *Riv. ped.*, 1932, 25, 503-525; 664-689; 1933, 26, 50-99; 231-249.—A general discussion of the theory and preferred methods of sexual education.—R. Calabresi (Rome).

1294. Bottalo Plebani, L. L'educazione del bambino attraverso i secoli. Cenni storici. (The education of the child across the centuries. An historical essay.) Milano: Antonio Vallardi, 1932. Pp. 254. L. 8.—In this essay the author presents a description of the condition of children and their education in the different historical periods from the time of Plato to the present.—R. Calabresi (Rome).

1295. Busemann, A. Wohnung und Schulzensuren bei Volksschulkindern. (Habitation and school marks of elementary school children.) *Zsch. f. Kinderforsch.*, 1931-32, 39, 33-39.—The dwelling-share (ratio of rooms to dwellers), advanced by Argelander

as an index of home environment, correlates positively with the school marks of 700 elementary school children of Breslau. Increase of number of rooms so that ratio is maintained as number of dwellers increases does not, however, maintain the value of school marks, which under these conditions is lowered.—K. C. Pratt (Michigan Central State Teachers College).

1296. Carlson, H. B. Intelligence and student's attitudes. *Psychol. Bull.*, 1933, 30, 578.—Abstract.—J. F. Dashiell (North Carolina).

1297. Carter, H. D., & Strong, E. K., Jr. Sex differences in occupational interests of high school students. *Person. J.*, 1933, 12, 166-175.—The nature and extent of sex differences in the occupational interests of young persons was studied through the administration of the Strong Vocational Interest Blank. 34 pairs of unlike-sex twins comprised the first group and 100 boys and 100 girls the second group. Certain consistent differences between the sexes were found. The girls appeared to have more interest in occupations involving use of language and contact with people, while all but one of the interest scales which showed higher scores for boys were in the science group. The authors suggest a possible explanation in terms of greater maturity of interests on the part of the girls.—P. Seckler (Radcliffe).

1298. Charters, W. W. A reply to Mr. Remmers' criticism. *J. Higher Educ.*, 1933, 4, 470.—Charters insists that investigators perfect their "measures" and develop adequate standard procedure in light of the generally thoughtless acceptance of invalid conclusions especially by educational administrators and professors of education.—R. A. Brotemarkle (Pennsylvania).

1299. Coveney, K. New trends in special class work. *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, 38, 295-298.—In Boston only improvable children are admitted to special classes. Their accomplishments are gaining community recognition. Since an investigation disclosed the fact that the children were not entering occupations for which they could be trained in school, the curriculum now emphasizes general training for life rather than specific skill. This training involves character training, health habits, bodily control, diction, and posture.—M. W. Kuenzel (Mooseheart Laboratory for Child Research).

1300. Cowdery, K. M. The guidance of youth in the colleges. *Occupations*, 1933, 12, 14-20.—Personnel work, broadly interpreted to mean all influences that stimulate the individual, aiding in his development and helping him to apply his powers to worldly problems, is a vital part of the educational program. The wide scope of this personnel work is discussed. The present trend of educational institutions is to pay a great deal of attention to the provision of personnel services, but to incorporate them into the normal operation of the academic organization rather than to leave them as segregated units.—S. H. Newman (Clark).

1301. Cowley, W. H. An experiment in freshman counseling. *J. Higher Educ.*, 1933, 4, 245-248.—A

four-year program of individual counseling of the freshman football squad at Ohio State University shows marked improvement of scholastic work in terms of point-hour ratios and greatly increased eligibility to play the next year. The study of this group during 1928-1932 led to a similar plan for the baseball and basketball squads. The plan included a comprehensive personnel record, a weekly report card, a weekly interview, and tutoring at the student's expense. The writer meets the criticisms of the work being done by the athletic department on behalf of students in which they were primarily interested by challenging other departments to show the same activity with students in which they are interested.—*R. A. Brotemarkle* (Pennsylvania).

1302. **Cuff, B. C.** Relationship of socio-economic status to intelligence and scholarship. *Ky. Person. Bull.*, No. 9, 4.—The American Council Psychological Examination and the Sims Socio-Economic Score Card were administered to 758 college freshmen. Standard scholarship rates of the freshmen were ascertained by use of Edgerton's tables. It was found that there is a tendency for those in the higher socio-economic centiles to have more intelligence and higher scholarship rates than those in the lower centiles. It is practically impossible, however, to predict intelligence or scholarship from socio-economic status with any degree of reliability.—*S. H. Newman* (Clark).

1303. **Dale, E.** How to appreciate motion pictures. New York: Macmillan, 1933. Pp. 243. \$1.20.—*R. R. Willoughby* (Clark).

1304. **Davis, P. W.** Intelligence and scholarship status of students in different colleges in the university. *Ky. Person. Bull.*, No. 9, 1-2.—An attempt was made to discover the relationship between intelligence and scholarship in the various colleges of the University of Kentucky. Equal groupings of 1482 students were made on the basis of their scores on the Kentucky Classification Test. In College C the students were decidedly above the University mean in intelligence, but slightly below the University mean in scholarship. The students in College D were decidedly below the University mean in intelligence, but slightly above the University mean in scholarship. Students in College B were slightly below the University mean in scholarship, although decidedly below the University mean in intelligence. There was no appreciable difference between the relative intelligence and scholarship ratings of Colleges A and E. It would appear that either the requirements of the work in the various colleges differ, or that the scholarship average of each college tends to approximate the University scholarship average, regardless of the intelligence average of the college group.—*S. H. Newman* (Clark).

1305. **Doll, E. A.** The relation of the public schools to the public institutions. *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, 38, 214-220.—An outline is offered of general policies and programs for the control of feeble-mindedness which would increase the effectiveness of work of the three major agencies dealing with the problem. These agencies, whose work could be coordinated, are the public institution, the public-

school system, and the public-welfare organization. In general, the welfare agency would act as the clearing house for the general control of the condition; the schools would promote more extensive special-class care of the feeble-minded of school age; and the facilities of the institution would be reserved for the most difficult cases, which could not be cared for or adjusted successfully in the community or be instructed advantageously in the public schools.—*M. W. Kuenzel* (Mooseheart Laboratory for Child Research).

1306. **Donovan, H. L., & Jones, W. C.** The ability of college students to predict their grades. *Peabody J. Educ.*, 1933, 11, 18-24.—One week before a semester's end 771 college students were asked each to make a prediction of the grades which he expected to make in the several courses for which he was enrolled. Assurance was given that the estimates would not be made known to instructors. All but 70 furnished complete data, predicting on the whole 3,875 grades. It was recognized that many factors influenced such predictions. Results after examinations show a correlation between predicted and actually obtained grades of  $.65 \pm .007$ . In the 18 departments  $r$ 's varied from .25 (industrial arts) and .47 (music and library science), to .84 (Chemistry) and .86 (physics). Sophomores predicted most accurately, then, in decreasing order, came juniors, seniors, and freshmen. Predictions increased in accuracy with number of hours' credit in a course, from  $r$  of .59 for less than 3, to .65 for 3 and .75 for more than 3 hours. The order of accuracy of predictions according to grades received was: C, B, A, F, D. Over-prediction of grades decreased regularly as the grades obtained increased. All errors of prediction made by A-grade students were under-predictions.—*J. Peterson* (Peabody College).

1307. **Dransfield, J. E.** Administration of enrichment to superior children in the typical classroom. *Teach. Coll. Contrib. Educ.*, 1933, No. 558. Pp. v + 107.—170 children of grades 3, 5, and 7 with IQ's over 110 and EQ's 100 and over were matched with 170 similar children. To one group were given self-administering instruction units of enrichment, which consisted of check tests, directions, activities, notebook exercises, objectives, guiding questions, etc. The students worked on them in school during the time they were excused from certain class work, and such time as they chose outside of school. The experiment was held during 81 calendar days. The technique was judged successful. The bibliography lists 29 titles. The appendices (statistical tables, selections from the results, teachers' time distributions, and pupil interest scale) occupy about half of the book.—*J. M. Stalnaker* (Chicago).

1308. **Eckert, H.** Über die Auswertung jugendkundlicher Forschungen für die praktische Erziehungsarbeit. (On the value of child psychology investigations for practical education.) *Vjsch. f. Jugendk.*, 1933, 3, 175-185.—Observations were made according to Klages' schema on 13-15-year-old students. 7 individual examples are presented which

show, in addition to typical prepubertal traits, characteristics due to the rural environment and the form and features of the society. The most important results of typical rural development are: (1) a unified and balanced make-up and an established sense of practical values; (2) conservatism; (3) good social sense, order, cooperation, patience, and obedience; (4) good habits established early by examples; (5) religious feeling; (6) thoughtfulness and reverence toward beauty, but seclusion in one's own world; (7) silence; (8) strength of body, spirit and soul; (9) inhibition in expression of feelings; (10) strength of will, faithfulness and perseverance; (11) devotion to family and tradition; (12) sense of reality; (13) love of truth.—*M. Lee* (Chicago).

1309. Farnsworth, P. R. Seat preference in the classroom. *J. Soc. Psychol.*, 1933, 4, 373-376.—The distribution of student preferences for seats in a classroom was found to coincide with that of good grades. It is suggested that the lecturer probably favors one area in the room to the detriment of the others, and that this factor is partially responsible both for the success of the students from that area and for their preference for seats in that section.—*E. B. Newman* (Harvard).

1310. Feofanov, M. [The theory of cultural evolution in pedology as an eclectic concept.] *Pedol.*, 1932, No. 1-2, 21-34.—*A. Yarmolenko* (Leningrad).

1311. Heaton, K. L. The character emphasis in education; a collection of materials and methods. Chicago: University of Chicago Press, 1933. Pp. 424. \$3.00.—*R. R. Willoughby* (Clark).

1312. Hillman, L. F. The university as preparatory. *J. Higher Educ.*, 1933, 4, 241-244.—The relationship of university training, including major and minor studies, to present vocations was studied for 4222 graduates of Indiana University during alternate years from 1908 to 1928. 2730 men and 1492 women were used to discover sex differences. The 1930 vocation listed in the Register of Graduates was used for all classes. The time element tended to decrease the percentages, especially in the case of marriages among the women. Other factors tended to increase the percentage during the later years—for example, the change in state laws requiring teachers to instruct in their major and minor fields. 56% of the total group were following vocations for which their majors trained them; 6% followed the minor emphasis; 4% were closely related; 34% not related. The increase from 1908 to 1928 was 53% to 71%. The sex difference reveals an average of 65% of men following the major emphasis to 38% of women. Assuming these percentages to indicate the vocational value of the major, the professional majors for men lead the list as follows: medicine (99%), dentistry (99%), anatomy (99%), law (74%), education (74%), commerce and finance (81%). The physical and biological sciences vary from 50% to 35%, while the social sciences and languages vary from 34% to 10%. The emphasis for women is markedly smaller throughout.—*R. A. Brotemarkle* (Pennsylvania).

1313. Jha, B. N. Modern educational psychology. Allahabad: Indian Press, 1933. Pp. xv + 448. 6/-.—Psychology is defined and its methods considered. Problems of heredity and environment, of instinct, sentiment, emotion, and the development of character are discussed. Sensation, perception, attention, memory and association, imagination, thinking, and reasoning are dealt with in this order. Learning and habits, intelligence testing, and problems of adolescence receive attention in special chapters. An appreciative introduction is written by James Drever.—*F. C. Bartlett* (Cambridge, England).

1314. Johnson, B., & Hartley, H. H. An outline of an inquiry being made at Syracuse University into the methods, purposes and effectiveness of the training of college freshmen in written composition. Syracuse: Syracuse University, 1933. Pp. 42. \$.50.—Outlines of a proposed investigation in which three parallel groups of college freshmen will be the subjects, and the determination of the efficacy of teaching composition by a socialized method as opposed to the conventional method will be the object. A control group will be used. Supplementary phases of the investigation will be concerned with the objective measurement of quality in written composition, with creative writing and its place in the curriculum, and with the relationships between written composition and personality characteristics. Preliminary experiments in each phase of the investigation are reported.—*L. A. Averill* (Worcester State Teachers College).

1315. Jones, E. S. Fact and the comprehensive examination. *J. Higher Educ.*, 1933, 4, 361-364.—Discussing the meaning of fact and the development of generalizations from the relationships involved in facts, the author criticizes various forms of fact-examining and act-examining. He concludes that the average American college examination challenges the student to or gives him opportunity for too little original thinking, and urges the use of sufficiently comprehensive questions for the purpose of developing an orderly exposition of new relationships.—*R. A. Brotemarkle* (Pennsylvania).

1316. Kirk, S. A. The influence of manual tracing on the learning of simple words in the case of sub-normal boys. *J. Educ. Psychol.*, 1933, 24, 525-535.—The conventional "sight" method and this method plus manual tracing of the words are compared with 6 boys of IQ range 63 to 80. No clear differences appear in learning, but in recall and relearning after 24 hours the manual tracing method is clearly superior.—*J. A. McGeoch* (Missouri).

1317. Kolbanowski, V. [Psychology must be included in the work of socialistic reconstruction of education.] *Psikhol.*, 1932, No. 4, 3-6.—*A. Yarmolenko* (Leningrad).

1318. Kung, H. C. Theory and practice of constructing secondary- and elementary-school educational tests. *Chung Hwa Educ. Rev.*, (Chinese), 1933, 20, No. 8, 83-96; No. 9, 51-62; No. 10, 85-94.—This paper is a general review of the theories and methods of constructing educational tests for the secondary and elementary schools. It covers the

following topics: (1) a comparison of the old-type and new-type examinations, their respective advantages and disadvantages being enumerated; (2) the criteria of a good test, such as validity, reliability, ease of administration and scoring, norms or standards, and duplicate forms; illustrative examples are given when each criterion is discussed; (3) types of educational tests, with examples; (4) procedure of test construction; (5) rules for constructing various educational tests. A full text of a common-sense test of Chinese literature is appended.—C.-F. Wu (Nat. Res. Instit. Psychol., Shanghai).

1319. Lincoln, M. E. **Measuring outcomes of the course in occupations.** *Occupations*, 1933, 12, 36-39.—Tests of vocational and educational information were given to classes of ninth-grade pupils at the beginning and end of the semester. Experimental groups attended occupational information classes meeting from one to five times a week. A control group received no instruction on this subject. The "results indicate definite achievement in the class in educational and occupational information which tends to increase with the amount of instruction in such classes."—S. H. Newman (Clark).

1320. Martens, E. H. **Organization for exceptional children within state departments of education.** *U. S. Off. Educ. Pamph.*, 1933, No. 42. Pp. 35.—A description of the existing administrative machinery in various state departments of education for dealing with various types of exceptional children. An ideal plan is also suggested.—C. M. Louttit (Indiana).

1321. McLeod, B. **Teachers' problems with exceptional children. I. Blind and partially seeing children.** *U. S. Off. Educ. Pamph.*, 1933, No. 40. Pp. 32.—A manual for teachers describing methods of detection and educational treatment of children with visual defects.—C. M. Louttit (Indiana).

1322. Moore, A. **The training of elementary school teachers in music.** *School Music*, 1933, 33, No. 166. 3-5; 8.—193 music supervisors, 28 college teachers of public school music, 21 school superintendents (all three groups from Ohio), and 20 national authorities on school music were asked to rate various musical objectives.—P. R. Farnsworth (Stanford).

1323. Mosher, R. M. **The San Jose plan.** *J. Higher Educ.*, 1933, 4, 305-306.—San Jose State College hopes to become the center in California for the development of college teaching. The direct method of a counselor in college teaching who will visit classes and advise the teachers is the basic procedure. In order to eliminate certain objections the first year was consumed in a general study of problems involved; the second year was taken up with certain specific problems discovered.—R. A. Brotemarkle (Pennsylvania).

1324. Myasishchev, V. N. **[The problem child in the regular school.]** Leningrad: [Childhood protection society], 1933. Pp. 120.—This volume contains 10 articles concerning the prophylaxis of problem children in the regular school, their recognition, and the special pedagogical methods required for them.

Data about the special institutions for problem children are included.—A. Yarmolenko (Leningrad).

1325. Nelson, R. W. **Theaetetus** Ph.D. *J. Higher Educ.*, 1933, 4, 234-240.—A discussion of the author's personal experiences during his work for his doctor's degree leads to his conclusion that the doctor's degree is a suppressor of student originality. He argues for a new clear-cut distinction to be granted for originality in research.—R. A. Brotemarkle (Pennsylvania).

1326. Patey, H. C., & Stevenson, G. S. **The mental health emphasis in education. Pt. III. Mental hygiene functions of the school.** *Amer. J. Orthopsychiat.*, 1933, 3, 464-494.—The parental functions of the school, teacher-administrator relationships, guidance, and testing, its status and difficulties are discussed. Among regular functions of the school, the arrangement of curriculum, the registrar and deans, student counsellors, the department of attendance, methods of classification, and certain extra-curricular activities provide opportunities for guidance work.—H. Peak (Randolph-Macon).

1327. Paul, J. B. **A study of the class period.** *J. Higher Educ.*, 1933, 4, 480-483.—Results based on 120 subjects paired on the basis of achievement tests in four fundamental courses. A control group used 55-minute periods (commonly accepted and employed as an hour standard) and the experimental group used 30-minute periods. The evidence shows a trend of greater knowledge, on basis of objective test results, in favor of the longer period, but not significantly greater than that attained by the shorter period. The study raises a need for further experimental work.—R. A. Brotemarkle (Pennsylvania).

1328. Pereira, J. **O ensino do desenho na escola primaria.** (The teaching of drawing in the primary school.) *Bol. Ministerio de Instr. Pub. de Lisboa*, 1932, 3, 3 ff.—The teaching of drawing at an early academic level is desirable for the following reasons: It is a form of graphic linguistic expression, and at the same time requires manual aptitude. It provides motivation conducive to the training of visual observation and mental representation of objects. Patience, creative imagination, adaptation, and attention are developed. At the higher levels the child who has been trained in drawing is enabled to grasp pictorially the facts presented in such studies as history, geography, and botany.—R. M. Bellows (Ohio State).

1329. Peters, C. C. **Some techniques for the quantitative study of values of learnings.** *J. Educ. Sociol.*, 1933, 7, 87-96.—There are listed eight methods of determining the degree to which public school learnings contribute toward the attainment of given objectives. These methods are briefly illustrated by reference to studies recently carried out at Pennsylvania State College: (1) analysis of life situations as compared with curriculum content; (2) analysis of textbooks as compared with the aims of the given course; (3) pupil reports on use of course material in interpretation and control of life situations; (4) reports from adults on frequency of use and

satisfaction derived from material previously studied in school; (5) controlled experimentation; (6) comparison of growth curves under instruction with normal curves; (7) tetrachoric correlations of success with subjects studied in school; (8) tetrad differences.—*F. D. McTeer* (Detroit Municipal University).

1330. Prince, F. B. **Handwork for special class boys.** *Proc. & Addr. Amer. Asso. Ment. Def.*, 1933, 38, 287-294.—Individualized handwork, including wood-working, chair-caning, tin-smithing, cobbling, brush-making, and lunch-room work is advocated. Academic training is given secondary emphasis.—*M. W. Kuenzel* (Mooseheart Laboratory for Child Research).

1331. Reinhardt, E. **Freshman difficulties.** *J. Higher Educ.*, 1933, 4, 307-309.—Difficulties were investigated among 220 first-year students in education at Eastern Illinois State Teachers College. 147 women and 73 men replied to a questionnaire containing 18 items on difficulties frequently observed among students. Only 12 added further items upon request, and only 97 gave indications of greatest difficulty. No sex differences are readily observed. The five most significant difficulties in order are: (1) worry about certain matters not connected with school work; (2) slow reading; (3) difficulty in securing reserved books from library; (4) inadequate preparation, especially in mathematics and English; (5) inadequate place for study. Over 50% list the item of worry, which prompts the writer to suggest a counseling service for students.—*R. A. Brotemarkle* (Pennsylvania).

1332. Remmers, H. H. **Class-size.** *J. Higher Educ.*, 1933, 4, 468-470.—The author replies to Charters' criticism of the lack of valid standards of measurement and classroom procedure in experiments reported. He admits the lack of adequate measures or examinations, but defends present results on the fact that examinations were composed by and acceptable to the teachers of courses. Critics are urged to produce better measures of educational objectives. Standards of teaching procedure are declared unnecessary for purposes of comparison of end results, and are accepted as a basic variable of class size.—*R. A. Brotemarkle* (Pennsylvania).

1333. Rubinow, I. M. **Why college? Why colleges?** *Occupations*, 1933, 12, 5-13.—It is deplorable that the colleges of today still stress "culture" as the greatest thing which education has to offer. The result is that the student never gives any thought to the prospects of his future participation in economic activity. Training for an occupation should be begun early in life, and consequently vocational guidance "must become the most important function of the college."—*S. H. Newman* (Clark).

1334. Rugg, E. U. **Issues in teacher education: suggested by analyses of permanent record charts of students in selected teachers colleges.** *J. Educ. Res.*, 1933, 27, 161-178.—In order to consider the proper high school and college preparation for prospective teachers, the curricula of 20 teachers colleges were analyzed. The question of specialization versus

general education is stressed. The author concludes that it is still too early to determine which of the two methods promises the better results for teacher preparation.—*S. W. Fernberger* (Pennsylvania).

1335. Rupp, H. **Zur Berufsberatung für Abiturienten.** (Vocational guidance for candidates for higher degrees.) *Psychotechn. Zsch.*, 1933, 8, 81-89.—In continuation of an article in which the author describes a series of tests and methods for vocational guidance of professional students, he gives a series of concrete case histories. With these he aims to demonstrate how to make the individual personality studies, and to show why, on the basis of his particular findings, he reached his conclusions, and why he suggested one particular profession or vocation rather than another.—*C. Burri* (Chicago).

1336. Sackett, E. B. **Achievement in Spanish of Canal Zone secondary school students.** *J. Educ. Res.*, 1933, 27, 207-216.—The Canal Zone presents a unique situation for this study because, although the community is largely composed of white American civilian employees, they come in daily contact with spoken Spanish, and the newspapers have both English and Spanish sections. The American Council Alpha Spanish test was given to 274 students in the Canal Zone school in grades 7 to 11 inclusive. After a statistical treatment of the results and comparison with results from the United States, the author concludes that the "results on the Canal Zone seem to be less satisfactory than do those in the States."—*S. W. Fernberger* (Pennsylvania).

1337. Soloviev, V. K. **Iz opita konstruirovania natsionalnich testov.** (Research on the construction of national tests.) *Sovet. psikhotekh.*, 1933, 6, 30-46.—This is a discussion and brief review of non-verbal tests. The author points out that a verbal test could not be standardized for the whole of Russia, due to various factors such as linguistic differences and physiographical conditions. Non-verbal tests were found to be the most useful and to have the greatest reliability. He describes seven types of picture tests in order of difficulty. He gives detailed descriptions of difficulties in constructing suitable tests and the necessary qualifications of psychologists engaged in their construction.—*L. S. Maeth* (New York City).

1338. Stoddard, G. D. **What the kindergarten and nursery school have in store for parent and child.** (Child Welfare Pamphlets No. 17.) *Bull. State Univ. Iowa, New Ser.*, 1933, No. 694. Pp. 7.—The aim of the nursery school is to assist parents in bringing their young children to the highest level along lines of physical, mental, social, and esthetic development. The peculiar offerings of the modern nursery school and kindergarten are discussed under the headings: play facilities; assistance in habit formation; assistance in problems of nutrition and health; provisions for social development; assistance in preventing and eliminating behavior maladjustments; esthetic factors; an advancing program; transfer to the home; parent education; parent freedom.—*B. Wellman* (Iowa).

1339. Stradley, B. L. High-school and college records. *J. Higher Educ.*, 1933, 4, 370-374.—A report of the comparative high-school and college records of the students awarded scholarships in Ohio State University on the basis of the general scholarship test for high-school seniors. The test is state-wide for a group of students from each high school selected on the basis of faculty recommendation, and there are numerous sectional awards as incentives. The collegiate record of the individuals in point-hour ratio is slightly better than the general university record. While the data are not sufficient to argue a definite stimulation of scholastic endeavor during high-school work, the author feels that the trend is significant and such projects should be encouraged.—R. A. Brotemarkle (Pennsylvania).

1340. Strang, R. Developments in student personnel research. *Teach. Coll. Rec.*, 1933, 35, 120-134.—The trends in personnel research are reviewed under five headings—selection of students, problems of personality and background, educational guidance, vocational guidance and part-time employment, and extra-curricular activities. The conclusion reached is that student personnel research should combine, as related parts of a single research program, the scientific study of specific factors under controlled laboratory conditions, and the less precise study of the student in his environment. The bibliography lists 40 titles.—J. M. Stalnaker (Chicago).

1341. Strong, E. K. Aptitudes versus attitudes in vocational guidance. *Psychol. Bull.*, 1933, 30, 585.—Abstract.—J. F. Dashiell (North Carolina).

1342. Sweet, E. C. Nursery school as a contributing factor in mental health. *Amer. J. Orthopsychiat.*, 1933, 3, 399-408.—The nursery school seeks to provide conditions favorable to the maximum mental, physical, and emotional growth of the child.—H. Peak (Randolph-Macon).

1343. Thorndike, E. L. The prediction of success in vocational life. *Occupations*, 1933, 12, 21-25.—A summarized report of a study of the educational and vocational careers of 2500 subjects over a period of 10 years. Predictions based on the information obtained from school records and psychological tests when these subjects were 14 years old were compared with the actual educational and vocational records of the subjects when they were 22. It was found that educational careers could be predicted with great accuracy, but it was practically impossible to predict vocational careers.—S. H. Newman (Clark).

1344. Tyler, R. W. Prevailing misconceptions. *J. Higher Educ.*, 1933, 4, 286-289.—Adequate adjustment of the college curriculum cannot be effected alone by integrating the curriculum more closely with the changing social order; satisfactory adjustment demands the consideration of the psychological conceptions upon which the curriculum is based and a vigorous elimination of major misconceptions. Five major psychological misconceptions are discussed: the tacit assumptions (1) that the learning of more complex modes of behavior goes hand in hand with

the memorization of information; (2) that individual differences in rate of learning are adjusted by merely allowing the student to proceed on his own outside of the required classroom work; (3) that the rate of learning is determined chiefly by the amount of time consumed in learning; (4) that learning is most effectively accomplished on the basis of grasping ideas from the printed page in contrast to other forms of presentation; (5) that all learning is equally permanent or equally transient.—R. A. Brotemarkle (Pennsylvania).

1345. Ullrich, F. H. The status of professional training in educational psychology. *J. Educ. Res.*, 1933, 27, 200-206.—Comparison of the curricula of 50 universities and colleges in six fields of education for the years 1921-1922 and 1931-1932 shows an increase of all courses which might be designated as some phase of educational psychology from 327 to 707 for the ten-year period.—S. W. Fernberger (Pennsylvania).

1346. Valentine, C. W. Die Unzuverlässigkeit der Prüfungen. (The undependability of tests.) *Vjsch. f. Jugendk.*, 1933, 3, 137-143.—11-year-old students leaving elementary schools in England are given examinations in English and arithmetic, by the results of which a group is selected for university scholarships. The author attempts to determine the validity of this basis of selection by comparing the group so aided with other students in the final university examination. He finds (1) that there is so little difference between those barely passing and barely failing on the first test that a retest would surely include a slightly different group; (2) that there is practically no relation between the rank orders of the students in the first and last examination; (3) that the grades of one third of the aided group were exceeded by two-fifths of the other students, and only one tenth of the former attained the highest grades. The men's grades were slightly higher than the women's. He recommends that the first tests include more subjects and possibly mental tests, that more consideration be given to the kind and value of the instruction given to students before taking the first test, or, best of all, that selection for aid be made after entrance into high school, where achievement shows a higher correlation with university achievement.—M. Lee (Chicago).

1347. Walker, W. The visiting teacher. (Child Welfare Pamphlets No. 19.) *Bull. State Univ. Iowa, New Ser.*, 1933, No. 696. Pp. 11.—Visiting teacher work is comparatively new in the field of education. It has grown up because of a felt need in the fields of social work and education. Attention is being turned more to prevention of problems than to treatment of difficulties. The visiting teacher must be one who understands the problem with which the school itself can deal. She must also be able to go out into the home and into the community and find out what are the underlying causes of the outside factors which are contributing to the child's difficulties. The services of the visiting teacher are needed in wealthier as well as poorer communities.—B. Wellman (Iowa).

1348. Watson, G. What should college students learn? *Prog. Educ.*, 1930, 7, 320-325; 399-403.—The author describes a plan for a new college curriculum in which the units of experience with which it challenges its students are organized under a number of general departments as follows: (1) the department of health; (2) the department of home participation; (3) the department of purchasing; (4) the department of leisure; (5) the department of vocation; (6) the department of citizenship. "The object of this curriculum of functional units is not to provide the student with enterprises that are superficially attractive. The appeal is not to his whims and preferences, but to his sense of worth and value. The question is not what he likes, but what in his sanest moments he finds most challenging to his interests." The role of the teacher, the problem of credits and degrees, and practical considerations of putting into effect the functional college described are also discussed.—H. W. Karn (Clark).

1349. Whitney, F. L., & Milholland, J. A four-year continuation study of a teachers college class. *J. Educ. Res.*, 1933, 27, 193-199.—Study of the class which entered Colorado State Teachers College in the fall of 1927 furnishes 494 cases for consideration. The trend in intelligence and the trend in scholarship are contrasted for different groups, and it is found that the level of intelligence rises with the passage of time. Poor scholarship is the most frequent cause of student mortality.—S. W. Fernberger (Pennsylvania).

[See also abstracts 881, 901, 1140, 1143, 1194, 1207, 1218, 1226, 1361, 1362, 1369, 1385, 1412.]

#### BIOMETRY AND STATISTICS

1350. Baten, W. D. Frequency laws for the sum of  $n$  variables which are subject each to given frequency laws. *Metron*, 1932, 10, 75-89.—It is the object of this article to find frequency laws for the sum of  $n$  independent variables, which are continuous and which have known continuous frequency laws. Laws for the sum of the variables are found by utilizing the results obtained by Dodd. Detailed developments for the required frequency laws are given for the cases of two specified laws for the separate variables, and results for other cases are tabled. Laws for the distribution of the sum, mean, weighted mean, and sum of the squares of normally distributed variables are derived. The law for the sum of the squares is a Type 3 frequency law when the individual variables are subject to the Gaussian law. A Charlier development is presented for this frequency law for the sum of squares of normally distributed variables, as well as for a case where the separate variables are not normally distributed. The precision of the sum of normally distributed variables is given by the square root of the reciprocal of the sum of the reciprocals of the squares of the precisions of the separate variables. Using similarly the weighted reciprocals of squared precisions gives the precision for the weighted arithmetic mean of the variables.—P. J. Rulon (Harvard).

1351. Franzen, R., & Derryberry, M. Weight and skeletal build. *Amer. J. Orthopsychiat.*, 1933, 3, 445-454.—The authors reply to a criticism of certain statistical methods reported in a former paper. Curvilinearity does not enlarge  $R$  and errors due to chance fluctuation of sampling have a negligible influence on the  $R$ 's reported.—H. Peak (Randolph-Macon).

1352. Frisch, R. On the use of difference equations in the study of frequency distributions. *Metron*, 1932, 10, 35-59.—The use of the difference equation yields an explicit expression for the incomplete moment taken over certain types of functions of a discrete variable. The expression for the first order incomplete moment of the point binomial is derived as an example. It is shown that for any frequency distribution the incomplete moments taken over certain functions of the variable satisfy simple recurrence formulae which are derived. A recurrence formula for the incomplete power-moments about the origin of the point binomial is derived as an example. An extension of the method gives recurrence formulae for complete moments over certain functions of the variable. Analogous analysis of continuous distributions by differential equations is presented and the first order incomplete power-moment of the generalized Pearson frequency function is derived. Local and total criteria for the nature of distributions are derived for both the discrete and the continuous case.—P. J. Rulon (Harvard).

1353. Horst, P. Predicting the combined standard deviation of two comparable tests when each has been given to a different group. *J. Gen. Psychol.*, 1933, 9, 221-223.—H. Cason (Wisconsin).

1354. Hotelling, H. Analysis of a complex of statistical variables into principal components. *J. Educ. Psychol.*, 1933, 24, 498-520.—(Continued from September issue.) The following general topics are considered in this section of the paper: determination of principal components for individuals; iterative solution of normal equations—convergence; tests as samples of a larger aggregate of tests; principal components with perfect weighting; and the "sand" and "cobblestone" theories of the mind.—J. A. McGeoch (Missouri).

1355. Peters, C. C., & Van Voorhis, W. R. A new proof and corrected formulae for the standard error of a mean and of a standard deviation. *J. Educ. Psychol.*, 1933, 24, 620-633.—A new approach is made and the formulae are generalized to make room for the correlation factor. The paper is part of a chapter on reliability from a book on statistics shortly to be published by the authors.—J. A. McGeoch (Missouri).

1356. Remmers, H. H. The validity, reliability and halo effect of human judgments in defined situations. *Psychol. Bull.*, 1933, 30, 577.—Abstract.—J. F. Dashiell (North Carolina).

1357. Rulon, P. J., & Croon, C. W. A procedure for balancing parallel groups. *J. Educ. Psychol.*, 1933, 24, 585-590.—The procedure is described and is

illustrated in terms of the distributions of the raw Terman scores of two groups of ninth-grade pupils. The procedure applies both to means and to standard deviations.—*J. A. McGeoch* (Missouri).

1358. Seashore, R. H., & Hevner, K. A time-saving device for the construction of attitude scales. *J. Soc. Psychol.*, 1933, 4, 366-372.—The writers show that the method of having judges rate items on a point scale is equivalent to the sorting method used in the usual Thurstone procedure.—*E. B. Newman* (Harvard).

[See also abstracts 1192, 1373.]

MENTAL TESTS

1359. Barreto, A. P., & Pessoa, C. Estudo psicotécnico do teste de Dearborn. (A psychotechnical study of the test of Dearborn.) *Arg. assist. a psicopat. de Pernambuco*, 1933, 3, 7-14.—An experimental analysis of the Dearborn Form A intelligence test. From the results of an examination of 1286 children 6 to 13 inclusive it is found that the scores obtained by Dearborn were regularly higher than those obtained here. The results of another worker who used the same test with children of the same age range show closer conformity to the figures of Barreto than to those of Dearborn. Sex differences were discovered, boys doing consistently better on the form than girls. "In concluding we are able to assert that the test of Dearborn shows a good differentiation of mental level according to age and grade, indicating that it may be considered a good test of intelligence."—*R. M. Bellows* (Ohio State).

1360. Bentley, J. E. Intelligence and intellect. *Psychol. Bull.*, 1933, 30, 621.—Abstract.—*J. F. Dashiell* (North Carolina).

1361. Bowen, J. L. Appraising the individual's ability. *J. Higher Educ.*, 1933, 4, 310-318.—A survey of the development of individual mental testing at the college-adult level starts with the suggestions of a committee on physical and mental tests appointed by the American Psychological Association in 1895. Much of the work in this field can be traced from Cattell and his students at Columbia and more especially from Witmer and his students at the University of Pennsylvania. As against the general intelligence test movement dating from the Binet scale and extending to Thurstone's tests for college freshmen several important studies pointed to the necessity of individual testing for the purpose of analyzing specific abilities and defects. The individual point of view has been emphasized particularly at Pennsylvania, where Miller, Brotemarkle, and Wright have given most significant procedures and principles. A summary of the progress made in this field to date indicates the general trend in mental testing at the college-adult level to be in the direction of individual testing.—*R. A. Brotemarkle* (Pennsylvania).

1362. Brolyer, C. R. Eighth annual report of the commission on scholastic aptitude tests. New York: College Entrance Examination Board, 1933. Pp. 24.—The report gives the number of students who took

the test in each of the various centers, the colleges for which the students were applicants, the details of scoring and checking the examination, the reliability of the scoring, the method of combining the scores, the reliability of the tests, information on those students who have repeated the examination, means and sigmas for the applicants to the different colleges compared for the last four years (the colleges are not given by name), and correlations of the scores with college grades. The total test, which has a reliability of about .97, was given to approximately 9,000 students in 1933. Its validity in predicting grades is .59.—*J. M. Stalnaker* (Chicago).

1363. Candee, B., & Smith, H. Relation between vocational and other interests and the type of performance on the Stanford-Binet test. *Psychol. Bull.*, 1933, 30, 570.—Abstract.—*J. F. Dashiell* (North Carolina).

1364. Conrad, H. S., & Jaffa, A. S. The reliability and validity of preschool tests of intelligence. *Psychol. Bull.*, 1933, 30, 595-596.—Abstract.—*J. F. Dashiell* (North Carolina).

1365. Coutinho, C. Contribuição a' revisão Pernambucana da escala de Binet-Simon-Terman. (A contribution to the Pernambucan revision of the Binet-Simon-Terman scale.) *Arg. assist. a psicopat. de Pernambuco*, 1933, 3, 15-26.—The history of the Binet-Simon scale is traced through the line of revisions by Kuhlmann, Goddard, Bobertag, Weigl, Degland and Decroly, Saffiotti, Jaederholm, C. Burt, and Terman. Modifications are made in the Terman revision to adapt and standardize the test to the children here considered. One hundred Brazilian children of three and four years were tested. A table showing the numerous shifts made in the scale from the three- to the four-year questions by ten revisions is presented.—*R. M. Bellows* (Ohio State).

1366. Jorgensen, C. An analysis of certain psychological tests by the Spearman factor method. London: E. A. Gold, 1932. Pp. 70. 3/-.—The monographer asks whether psychological tests measure what they are supposed to measure, whether and to what extent general intelligence is a factor in all such tests, and what degree of reliability the Spearman methods give in actual use. It is maintained that many intelligence tests are too specific to be of much use; that tests of special abilities composed of subtests are of relatively little value; that the widespread belief that the material of intelligence tests should be equally familiar or unfamiliar is of doubtful foundation; and that long tests are not necessarily superior. An attempt is made to state the conditions under which the Spearman tests yield reliable results. These are more restricted than is often assumed.—*F. C. Bartlett* (Cambridge, England).

1367. Loudon, M. V. Relative difficulty of Stanford-Binet vocabulary for bright and dull subjects of the same mental level. *J. Educ. Res.*, 1933, 27, 179-186.—Study of a group of 28 dull subjects matched with a group of bright children with respect to mental age and sex at the University of Pittsburgh. A statistical study of the results for the vocabulary

test of the Stanford-Binet test shows "in every case differences which indicate the superiority of the 'bright' child over the 'dull' child of the same mental level."—S. W. Fernberger (Pennsylvania).

1368. Marsh, C. J. Human adaptability as related to age. *Psychol. Bull.*, 1933, 30, 589.—Abstract.—J. F. Dashiell (North Carolina).

1369. Oppenheimer, J. J. Tests used at the University of Louisville. *Ky. Person. Bull.*, No. 9, 3.—The Kentucky Classification Test and the American Council Psychological Examination were given to 292 freshmen. A coefficient of correlation of .562 was found between results on the American Council test and the average point standing at the end of the first semester's work. Results on the Kentucky Classification Test gave a correlation of .603 with the average point standing. Other coefficients of correlation between these tests and first semester grades on individual liberal arts courses ranged from .436 to .560.—S. H. Newman (Clark).

1370. Pintner, R., & Forlano, G. The influence of month of birth on intelligence quotients. *J. Educ. Psychol.*, 1933, 24, 561-584.—The data consist of 17,502 IQ's distributed according to month of birth and divided into three social levels and into an urban New York group and a miscellaneous group. The lowest mean IQ occurs, for each social level, in the months January to March. The difference between the mean for these months and the highest seasonal mean is 1.70. This difference is statistically reliable and appears consistently. The highest seasonal mean does not occur consistently at any one period. When the months are ranked with respect to sunshine and temperature, a correlation of .59 is found between IQ and sunshine and one of .67 between IQ and temperature. The lower IQ of those born in winter is interpreted as due to the fact that "children born in winter suffer more illness and are born of mothers weighted with more illness." Those who survive are more likely to be impaired.—J. A. McGeoch (Missouri).

1371. Smith, G. M. Group factors in mental tests similar in form or in content. *Psychol. Bull.*, 1933, 30, 568-569.—Abstract.—J. F. Dashiell (North Carolina).

1372. Spearman, C. The factor theory and its troubles: II. Garbling the evidence. *J. Educ. Psychol.*, 1933, 24, 521-524.—It is pointed out that in certain discussions of the factor theory irrelevant defects of only indirectly related studies have been emphasized, while some of the best evidence for the theory has been neglected.—J. A. McGeoch (Missouri).

1373. Spearman, C. The factor theory and its troubles. III. Misrepresentation of the theory. *J. Educ. Psychol.*, 1933, 24, 591-601.—The criticism that the theory of two factors fails to be corroborated by actual observation is based on a misunderstanding of the theory. The critics "have committed the cardinal error of taking it to deal only with the simple case where the correlations show zero tetrads (or, in older terms, 'hierarchy'). Whereas in truth,

a function of the theory just as aboriginal, and even more essential, is to deal with the complex case where the tetrads are not zero." The meaning of the term "specific factor," the scientific status of the theory, and other related matters are also discussed.—J. A. McGeoch (Missouri).

1374. Todd, J. W. Certain resources of a definitions test. *Psychol. Bull.*, 1933, 30, 596.—Abstract.—J. F. Dashiell (North Carolina).

1375. Vitenson, I. G. [The comparison of analogy tests in two forms.] *Sovet. psikholekh.*, 1932, No. 5-6, 377-385.—The selective and inventive forms of analogy tests cannot be judged to measure the same psychic function. A minute analysis is needed. The structures of the answering processes of the selective and inventive analogy test are different.—A. Yarmolenko (Leningrad).

1376. Watson, G. Note on validity in the measurement of change. *J. Educ. Res.*, 1933, 27, 187-192.—A battery of tests was given to 561 boys in summer camps in 1925 and a revised battery to 1216 boys in 1926. These form the data for the present study, with the emphasis on change between the two sets for both individual tests and for the entire battery. From a statistical treatment of the results the author concludes that the standardization of tests of character change and of educational achievement has heretofore been faulty because reliability and meaning of the change have been assumed to run parallel to reliability and meaning of the status. "Good tests, intended to be used 'before and after,' should furnish coefficients of reliability and validity for change scores as well as for status scores."—S. W. Fernberger (Pennsylvania).

1377. Zubin, J. Factor analysis of the Spearman visual perception test. *Psychol. Bull.*, 1933, 30, 568.—Abstract.—J. F. Dashiell (North Carolina).  
[See also abstracts 1081, 1120, 1152, 1302, 1349.]

#### CHILDHOOD AND ADOLESCENCE

1378. Baranova, F., Golahovskaya, A., Tohri, B., & Rahmatullina, S. [The external appearance of children's books.] *Psikhoh.*, 1932, 4, 7-22.—A. Yarmolenko (Leningrad).

1379. Bathurst, J. E. A study in sympathy and resistance (negativism) among children. *Psychol. Bull.*, 1933, 30, 625.—Abstract.—J. F. Dashiell (North Carolina).

1380. Baumgarten, F. Gesundheit und Krankheit im Vorstellungsleben der Kinder. (Health and illness in the ideational life of children.) *Zsch. f. Kinderforsch.*, 1931-32, 39, 116-133.—The thought processes of children (91 boys, 98 girls 11-12 and 91 boys, 94 girls 14-15 years of age) in the primary and secondary schools of Berne, Switzerland, were investigated by analyzing their written answers to the question "Upon what does the health of man depend?" The factors given as causes may be divided into positive (air, food, exercise, etc.), negative (alcohol, smoking, etc.) and neutral (climate, etc.). Younger children rate food as most important among the positive fac-

tors, while older children emphasize sport and sanitation. The most frequently mentioned negative factor is alcohol. The answers indicate the role of the school in determining the ideational content of the child.—*K. C. Pratt* (Michigan Central State Teachers College).

1381. **Bayley, N.** *Mental growth during the first three years.* *Genet. Psychol. Monog.*, 1933, 14, 1-92.—This study is a report on investigations made on 61 infants from birth through three years. 49 infants completed the whole three-year series of tests. Thurstone's absolute scaling method was used. The test situations used included those designed for the study of reflex, physical, motor, bodily, and mental growth. The variability of the group increased, generally, with growth. The tests apparently measure different functions at successive age levels "rather than a unit function of intelligence which extends throughout life." The correlation between scores and the education of parents is negative in the first seven months, then becomes zero, and in the second year grows increasingly positive. The experience of the "play school" seems to raise the scores of the children who had play-school experience. The complete list of tests used for this part of the study is included in the monograph. The bibliography includes 63 citations.—*F. M. Teagarden* (Pittsburgh).

1382. **Beasley, W. C.** *An investigation of related problems in the vision of newborn infants.* *Psychol. Bull.*, 1933, 30, 626.—Abstract.—*J. F. Dashiell* (North Carolina).

1383. **Bird, G. E.** *Annoyers and satisfiers in the school career of one thousand students.* *Psychol. Bull.*, 1933, 30, 557.—Abstract.—*J. F. Dashiell* (North Carolina).

1384. **Bridgman, R. P.** *The quest for emotional honesty.* (Child Welfare Pamphlets No. 22.) *Bull. State Univ. Iowa, New Ser.*, 1933, No. 699. Pp. 12.—The primary responsibility of a parent today is to grow increasingly able to understand each of his or her children. This means thinking with one's feelings about children, feeling what they feel, sharing their joys and sorrows, appreciating their struggles, and yet never getting lost in sentiment about them. More harm is done to children by parents' attempts to pattern their parental behavior by ideals of calmness and firmness than by expressions of annoyance, anger, disgust, joy or affection. Honest and spontaneous expression of feeling fosters better control by the individual, mutual respect, and security in each other's affections.—*B. Wellman* (Iowa).

1385. **Cameron, H. C.** *The nervous child at school.* New York: Oxford Univ. Press, 1933. Pp. vi + 160. \$1.50.—The author feels that the difficulties of nervous children at school are caused by fatigue and unhappiness. These two factors lead to behavior disorders such as lying, stealing, playing truant, masturbating, and the like. He proposes to cure such disturbances by removing the fundamental causes; i.e., by making the child happy and well. Appropriate medical methods and long periods of rest are advised as treatment for fatigue. The author realizes and

points out that fatigue and unhappiness are inter-related conditions which can be caused by emotional conflicts. He also realizes that children suffering from such complaints should be treated with great understanding, and that the causes of the conflicts should be adjusted.—*J. Dollard* (Yale).

1386. **Chadwick, M.** *Adolescent girlhood.* New York: John Day, 1933. Pp. 303. \$3.50.—Adolescence may be symbolized as a bridge. Thus emphasis is put on the period's transitional quality and on the fact that the adolescent looks backward as well as forward—childhood experiences being revived swiftly and at high pressure at the same time that physical and mental changes are foreshadowing the future. One should steer a middle course between thinking that there are no problems in the psychological development of the adolescent girl and thinking that there are a mass of them. Primitive tribal customs, fairy tales and other literature of the past and present yield, on analysis, significant material regarding the fundamental nature of these problems. The specific forms which they may assume in this civilization are indicated in a survey of situations found today within family groups and elsewhere. Armed with such knowledge, the adult is better able to show the adolescent girl an intelligent sympathy—the best of the several ways to help her.—*A. Payne* (Worcester State Hospital).

1387. **Clark, G. H.** *A sociologic score system for the care and training of children.* (11th ed.) Long Beach, Calif.: Seaside Pr. Co., 1933. Pp. 78. \$1.25.—*R. R. Willoughby* (Clark).

1388. **Clauss, K.** *Mutter und Sohn. Vom Werdegang vaterloser Halbweisen.* *Manns päd. Mag.*, 1931, No. 1230. Pp. 104.—*R. R. Willoughby* (Clark).

1389. **Disher, D. R.** *An experimental study of the reactions of new-born infants to olfactory stimuli.* *Psychol. Bull.*, 1933, 30, 582.—Abstract.—*J. F. Dashiell* (North Carolina).

1390. **Dysinger, W. S., & Ruckmick, C. A.** *The emotional responses of children to the motion picture situation.* Bound with *Peters, C. C. Motion pictures and standards of morality.* New York: Macmillan, 1933. Pp. xiii + 122; v + 285. \$2.00.—Dysinger and Ruckmick studied the emotional effects produced by motion pictures in children and adults by means of psychogalvanic and pulse records, and verbal reports. Records were made both in the laboratory and at the theater on 150 subjects ranging in age from 6 to over 50 years. Emotional incidents in 7 different pictures were itemized and records of the bodily effects produced by them analyzed. Wide individual differences resulted. Repetitions of a picture aroused diminished emotional responses. Reactions to danger and conflict were greatest in children, and especially in boys, under twelve. The 16-year level gave the greatest response to love scenes. In general, the most extreme stimulation occurs near the age of 16. The adult reaction was found not to be a valid criterion of the reaction of younger ages. Younger children do not perceive pictures as wholes, but as numerous separate incidents. Practical con-

clusions were drawn.—*M. W. Kuenzel* (Mooseheart Laboratory for Child Research).

1391. **Edson, N. W.** *Sex conduct.* (Child Welfare Pamphlets No. 21.) *Bull. State Univ. Iowa, New Ser.*, 1933, No. 698. Pp. 10.—There is a constant need of those training children to put themselves in the child's place. In no phase of education is this need more evident than in guidance of boy-girl conduct. Child and adult wants in sex conduct are totally different, because the life situations to be met are so totally different. Rarely is there anything that might be called a sex drive in the early years, even though child curiosity or eagerness may at times seem to imply that there is. The child's sex conduct today paves the way for his future sex conduct. Putting one's self in the child's place, determining what he needs, how he got that need, and how it can be met are recommended as a method of sex education.—*B. Wellman* (Iowa).

1392. **Ellesor, M. V.** *Children's reactions to novel visual stimuli.* *Psychol. Bull.*, 1933, 30, 627.—Abstract.—*J. F. Dashiell* (North Carolina).

1393. **Furfey, P. H.** *Understanding your school-age child.* (Child Welfare Pamphlets No. 18.) *Bull. State Univ. Iowa, New Ser.*, 1933, No. 695. Pp. 13.—The psychology of the child is a constantly changing psychology. Growth proceeds along many parallel lines. There are certain characteristic ways of acting which are more or less peculiar to each age of childhood. Aggressiveness develops from the timidity of the six-year-old to the apparent self-confidence of the adolescent. Vocational ambition progresses from rather visionary aims to sober facing of fact. Social adjustment advances from irresponsibility to nascent citizenship. Relations between the two sexes develop from a care-free camaraderie through a period of sex antagonism to an adolescent interest in the other sex. Play preferences progress from dramatic play and individualistic competition to social cooperation. There are wide ranges of developmental acceleration and retardation.—*B. Wellman* (Iowa).

1394. **Gilmer, B. v. H.** *An analysis of the spontaneous responses of the newborn infant.* *Psychol. Bull.*, 1933, 30, 626.—Abstract.—*J. F. Dashiell* (North Carolina).

1395. **Golin, A.** *Dati biometrici e osservazioni clinico-biologiche sugli scolari di Padova.* (Biometric data and clinico-biological observations on school children in Padua.) *Riv. di sci. appl. all'ed. fis. e giov.*, 1932, No. 5, 375-385.—*R. Calabresi* (Rome).

1396. **Groves, E. R., & Groves, G. H.** *Sex in childhood.* New York: Macaulay, 1933. Pp. 247. \$3.00.—A book addressed to parents, non-technical in style, but giving more detailed treatment to the different phases of psychosexual development than the usual "popular" treatise. The early chapters stress the necessity for the parents to have a previously thought-out policy on sex education before sex questions arise. They suggest taking a middle ground between total suppression and entire negligence in dealing with the oral and genital stages of the very young child's interests. From two to five

or six years, when the child's chief business is accepting his psychosexual role, tension aroused by the emotional conflict involved in finding his place in relation to two parents, instead of the mother-centered interest of babyhood, may be lessened by the intelligent cooperation of both mother and father. Some space is given to the homely problems which come up in the course of the child's encounter with current concepts of modesty, as well as to chapters on the sort of questions the young child is likely to ask about "Where do babies come from?" and "What are daddies for?" Problems of the emotional adjustments of the young child to parents and siblings in various types of family situations are treated under *Sex and Jealousy*. Another chapter discusses difficulties arising from sex play in encounters with children outside the home. Masturbation is considered, not as a simple phenomenon to be classified out of hand as in itself either dangerous or harmless, but as a type of activity which may arise from different situations and which may therefore be evaluated according to its context in the life of the individual—the real problem being, not "Does he masturbate?" but "Why does he masturbate?" In discussing the pre-adolescent, the authors point out the importance of the transition from home to out-of-home interests in the sex-quiescent years—the intense need for superficial conformity to the usages of the age-group and the necessary rebellions against complete acquiescence in home standards. The physical and psychic changes occurring at puberty in both boy and girl are treated at some length, with diagrammed descriptions of the mature male and female genitalia and accounts of their functions. There is also a glossary of biological terms at the end of the book, designed to give the parent an adequate vocabulary for the discussion of sex processes. The authors feel that a book of this sort would be incomplete without giving some space to sexual abnormality, physical and psychic. Of the two, they consider that psychic and social maladjustments are by far the more prevalent cause of sex aberrations.—*C. R. Lerner* (Worcester, Mass.).

1397. **Gruenberg, S. M., & Gruenberg, B. C.** *Parents, children and money.* New York: Viking Press, 1933. Pp. 212.—In learning the use of money, the child not only acquires, or fails to acquire, facility in certain practical techniques, such as purchasing, planning, saving, etc., but he also takes on certain emotional attitudes toward this significant factor in our social life. This results partly from a reflection of the attitudes of his parents and of the people with whom he comes in contact, but especially from the part money has played in the child's own process of adjustment—whether to heighten a feeling of inferiority, to serve as a compensation, or as a means to power. The ideal approach, in the opinion of the authors, is an objective one, in which money is viewed simply as a part of the system of exchange, and not as a measure of worth. Parents are urged to allow children to learn the practical implications of money, by actually handling it in suitable amounts, and carefully to avoid tying up questions of finance with complex psychic interrelationships of parent and child. There is also some attempt to evaluate the

traditional virtues of thrift, saving, earning experience, etc., in the light of our modern machine economy.—C. R. Lerner (Worcester, Mass.)

1398. Halverson, H. M. The acquisition of skill in infancy. *Psychol. Bull.*, 1933, 30, 553.—Abstract.—J. F. Dashiell (North Carolina).

1399. Hauer, E. Versuche über den Ausfall von akustischen Vorstellungsinhalten bei schwerhörigen Schulkindern. (Tests of the deficiency of auditory image content in hard-of-hearing school children.) *Zsch. f. Kinderforsch.*, 1931-32, 39, 226-234.—The mental development of children with impaired hearing is hindered by lack of comparative deficiency of auditory imagery to natural phenomena and to words. The louder the sound the more likelihood that auditory imagery will be built up. Corrective treatment, therefore, consists in effecting a suitable amplification of natural sounds in relation to the objects, animals, etc. which produce them.—K. C. Pratt (Michigan Central State Teachers College).

1400. Hetzer, H. Das volkstümliche Kinderspiel. (National child play.) *Wien. Arb. z. päd. Psychol.*, 1927. Pp. 84.—The chief aim of this work lies in an attempt to point out the relationship between popular tradition and child play-forms. It presents a valuable instance of the local variations of the latter. The author considers that the value of play consists in bodily and sensory exercise, practice in self-control, assumption of roles, adjustment to tasks, and social organization. Child play, depending more on imagination than on intelligence, is essential to full development, and customs taken from adults are as necessary to the child as are traditional folk tales.—M. Lee (Chicago).

1401. Hsiao, H. H. Three major problems in the mental growth. *J. Testing* (Chinese), 1933, 3, 51-54.—After a brief review of the conflicting theories concerning the form of the mental growth curve, age of mental maturity, and age and variability of intelligence, the author presents the results of his own experimental work on these three problems. Army Alpha tests were used, consisting of the following 8 tests, namely (1) comprehension of directions, (2) simple arithmetic problems, (3) practical judgments, (4) synonymous words or opposites, (5) disordered sentences, (6) arithmetical progressions, (7) analogies, and (8) a common-sense test. A total of 1131 subjects whose ages ranged between 11 and 54 years were obtained from 7 eastern districts of the United States of America. It was found that between the ages of 11 and 54 each of the eight separate tests showed that the early part of mental growth curve was linear and then became negatively accelerated. The composite result of all tests showed the same thing. Hence, both the linearity theory and the theory of negative acceleration are only partially true. Concerning the age of mental maturity, the results showed that it varied with the functions tested. Any assumption that the growth of all functions reached maturity at the same age is obviously against the facts. Lastly, it was found that except in Test 8 the variability of intelligence as shown in the tests used tended to decrease with advancing age

and then increased. The composite result of all tests showed that at least between the ages of 11 and 15 there was a tendency to decrease with increasing age. The assumption that the variability of intelligence increases particularly at puberty or that it does not change at that stage is evidently not in harmony with the results of these experiments.—C.-F. Wu (Nat. Res. Instit. Psychol., Shanghai).

1402. Irwin, O. C. Proximo-distal differentiation of limbs in young organisms. *Psychol. Rev.*, 1933, 40, 467-477.—Reply to an article of McGraw, in which she had questioned the validity of the author's statement that the grasping patterns of infants constitute a final stage in the proximo-distal development of the limbs, and hence illustrate the differentiation of a specific pattern from generalized or mass responses. Much additional evidence is reviewed supporting the author's contention and the organismic hypothesis.—A. G. Bills (Chicago).

1403. Jaensch, E. R., & Reibel, H. Ueber die Vorstellungswelt der Jugendlichen und den Aufbau des intellektuellen Lebens. VIII. Experimentell-strukturpsychologische Untersuchungen über den Jugendtypus. (On the ideational world of adolescents and the structure of the intellectual life. VIII. An experimental structure-psychological study of the youthful type.) *Zsch. f. Psychol.*, 1933, 130, 28-89.—84 children, ranging for the most part between 9 and 12 years of age, were classified according to psychological type on the basis of a study of their free associations, paintings, drawings, play, conceptual symbols, and synesthetic and eidetic tendencies. The majority fell naturally within the limits of the J<sub>1</sub> type, but fluctuations were so great that it was found more satisfactory to describe them simply as having an affinity for the J<sub>1</sub> type.—R. B. MacLeod (Swarthmore).

1404. Jersild, A. T. *Child psychology*. New York: Prentice-Hall, 1933. Pp. 462. \$3.00.—The book has been built chiefly upon the findings in research studies, and includes chapters on: the newborn child; the development of the infant; the development of language; the infant's emotions; the child's fears; anger, jealousy, joy, and other affective states of children; the development of social behavior; learning; the growth of understanding; the measurement and prediction of individual differences in mental ability; personality and character; and some aspects of applied child psychology.—H. Cason (Wisconsin).

1405. Jersild, A. T. Children's wishes, dreams, fears, daydreams, pleasant and unpleasant memories. *Psychol. Bull.*, 1933, 30, 552-553.—Abstract.—J. F. Dashiell (North Carolina).

1406. Jones, A. N., & Nemzek, C. L. Children's interests in music. *School Music*, 1933, 33, No. 166, 6.—Reviews of three masters' theses: L. N. Cole's *The Musical Abilities and Interests of Junior High School Pupils*, U. S. C., 1932; C. M. Houg's *Children's Interest in Singing*, Minnesota, 1930; and M. Nesbitt's *Arousing Children's Interest in Russian Music*, N. Y. U., 1931.—P. R. Farnsworth (Stanford).

1407. Klein, R. Die Autorität als eine Form der sozialen Beeinflussung. Eine experimentelle Unter-

suchung an Kindern des 1. und 2. Lebensjahres. (Authority as a form of social influence. An experimental investigation of children during the first two years of life.) *Zsch. f. Kinderforsch.*, 1931-32, 39, 249-299.—The connotations of "authority" in popular usage, pedagogy, sociology and social psychology are reviewed. The experimentation is based upon the Bühler analysis of "personal authority" in terms of the one who dominates and the one who is dominated, with appreciation of the relation by the latter. The genesis of such "authority" is investigated in experimental situations wherein the experimenter is the focal point for the child. To a command there is initially lack of comprehension, but release of social reactions to voice and gesture, followed genetically by comprehension manifested through resistance increasing with age. To a prohibition with experimenter present as enforcing agent there is first no comprehension, with mere mechanical inhibition, followed later by social inhibition when the situation is understood. With departure of the experimenter there is only an incipient tendency towards persistent inhibition. Return of the experimenter may reestablish the situation. Appreciation of authority is shown in child-initiated situations wherein the child turns to the adult for sympathy, help, and knowledge in the developmental order named.—*K. C. Pratt* (Michigan Central State Teachers College).

1408. Koch, H. L. Popularity in preschool children: a technique for its measurement and some related factors. *Psychol. Bull.*, 1933, 30, 577-578.—Abstract.—*J. F. Dashiell* (North Carolina).

1409. Lange, H. Das Erwachen der Seele. Die seelische Entwicklung des Menschen bis zum 5. Lebensjahr im Bilde. (The awakening of the mind. The mental development of man up to the fifth year shown in pictures.) Leipzig: Rotapfel-Verl., 1933. Pp. 92. RM. 1.80.—*R. R. Willoughby* (Clark).

1410. Langworthy, O. R. Development of behavior patterns and myelination of the nervous system in the human fetus and infant. *Contrib. Embryol., Carnegie Inst.*, 1933, No. 139. Pp. 57.—This paper first presents a summary of much of the important literature on the development of behavior in young animals. It then summarizes the author's previous studies on the correlation between the development of behavior and the anatomy of the nervous system in the opossum and the cat. A description of the development of myelinated tracts of the human fetus and young infant is then presented on the basis of new experimental work. A correlation between these findings and the physiological descriptions of fetal and neonatal behavior given by Minkowski and others is then developed. The present paper presents no new observations on fetal behavior. The conclusion is drawn that reflex activity may be seen before any pathways are myelinated, but such responses are diffuse and slow. The initiation of activity in neurons, however, seems to stimulate the growth of myelin. By the time of birth the development of myelin has so far progressed that all of the activities could be mediated by neural pathways which have acquired their myelin sheaths.—*L. Carmichael* (Brown).

1411. Lau, E. Das Greifen, die Dingauffassung und der Werkzeuggebrauch in der frühen Kindheit. (Reaching for things, perception of objects and manipulation of tools in early childhood.) *Psychotechn. Zsch.*, 1933, 8, 79-81.—Lau maintains that ability to manipulate things in early childhood can be used as an index of manual intelligence. A careful study of a child's early development in manipulation and his use of objects for tools throws considerable light on the development of manual ability. It was found that frequently lack of manual ability in adult life can be traced back to a lack of opportunity for manipulating objects in early childhood. Often early grasping activities are blocked. This results in a situation in which little practice in handling things is provided. It seems therefore that, in order to develop manual intelligence, children should be given ample opportunity to use their hands in many varied ways.—*C. Burri* (Chicago).

1412. Laycock, S. R. Adjustments of superior and inferior school children. *J. Soc. Psychol.*, 1933, 4, 353-366.—A group of 51 carefully selected superior school children were compared with an equal group of inferior children. Ratings were secured from two successive teachers for each child on a list of 102 personality or behavioral traits indicative of maladjustment. Corresponding ratings were made by the writer from information supplied in personal interviews by the children's parents. The inferior group was found to possess significantly higher ratings on 84 out of the 102 items listed by the teachers and 21 out of 80 items rated by the parents. The superior group, on the other hand, received reliably higher ratings on only one item by the teachers and eight items by the parents. An analysis of the traits possessed by the inferior group indicates clearly that the lack of suitable training for the inferior child is a major causal factor in the genesis of his maladjustment.—*E. B. Newman* (Harvard).

1413. Litzka, G. Experimentelle Untersuchungen über den Einfluss der Schwangerschaftshormone auf den Organismus des Fetus und Neugeborenen. (Experimental investigation of the influence of pregnancy hormones upon the organism of the fetus and of the newborn infant.) *Zsch. f. Kinderhk.*, 1933, 54, 742-757.—The author seeks the explanation of phenomena, normally characteristic of maturity, which appear temporarily in the genital organs of the female newborn infant. In experiments upon pregnant guinea pigs he finds that both the ovarian hormone and that from the anterior lobe of the hypophysis pass through the placenta. The ovarian hormone stimulates growth of the fetal uterus and produces the proliferation phase. That from the hypophysis starts follicle maturation and atresia. These phenomena correspond to those found in newborn human infants and indicate that maternal hormones passing through the placenta are the causative factors.—*K. C. Pratt* (Michigan Central State Teachers College). [See also abstracts 925, 956, 1042, 1134, 1152, 1155, 1164, 1184, 1186, 1199, 1206, 1212, 1214, 1229, 1231, 1245, 1247, 1253, 1254, 1255, 1258, 1297, 1308, 1338, 1347, 1351.]

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# AUTHOR INDEX

(Continued from Inside Front Cover)

- Liddell, A. F., 775  
 Liddo, S., 844  
 Lincoln, M. E., 1319  
 Lindberg, J. G., 845  
 Lindsay, C. F., 1233  
 Litzka, G., 1413  
 Loewenbach, H., 947  
 Lord, A. B., 1140  
 Lorge, I., 905  
 Loudon, M. V., 1367  
 Louttit, C. M., 776  
 Lucena, J., 1141  
 Luckiesh, M., 846  
 Ludovici, A. M., 1092  
 Lufkin, H. M., 803  
 Lugiatto, L., 1234  
 Lundberg, G. A., 1235
- Machol, H., 990  
 MacKenzie, C., 991  
 Maletti, M., 1236  
 Malisoff, W. M., 777  
 Maller, J. B., 1237  
 Manzer, C. W., 992  
 Marcuse, M., 1229  
 Margotta, G., 847  
 Marks, E. S., 778  
 Marples, G., 1045  
 Marquis, D. G., 949  
 Marsh, C. J., 1368  
 Marshall, C., 1046  
 Marshall, H., 1189  
 Martens, E. H., 1320  
 Matheua, B. H. C., 927  
 Marts, E. W., 1142  
 Marulli, A., 848  
 Marzi, A., 1282  
 Maslow, A. H., 1047  
 May, M. A., 1256  
 McDonald, M. F., 779  
 McFarland, R. A., 993  
 McGeoch, G. O., 906  
 McGeoch, J. A., 780, 907, 908, 909, 910  
 McGlone, B., 803, 804  
 McKinney, F., 911, 912, 994  
 McLeod, B., 1321  
 McPherson, G. E., 1143  
 Meerloo, A. M., 1190  
 Meerovich, R. J., 1144  
 Meggendorf, F., 1238  
 Melton, A. W., 913  
 Meltzer, H., 888  
 Mendoza, R., 849  
 Menzies, R. N., 914  
 Miles, C. C., 1191  
 Miles, W. R., 850  
 Millholland, J., 1349  
 Miller, E., 758  
 Miller, H. C., 1093  
 Mints, A., 950  
 Misbach, L. E., 995  
 Mitra, S. C., 889  
 Mochizuki, M., 996  
 Model, M. M., 956  
 Moede, W., 1283  
 Moll, A., 1239  
 Moodie, W., 758  
 Moore, A., 1322  
 Moore, H., 1284
- Moore, T. V., 781  
 Moreno, J. L., 1240  
 Morey, R., 1048  
 Morinaga, S., 851  
 Morish, J. E., 852  
 Mosher, R. M., 1323  
 Moss, F. K., 846  
 Mower, O. H., 782, 967  
 Mullins, F. J., 1094  
 Munsell, A. E. O., 853  
 Murata, T., 854  
 Murphy, E. F., 1241  
 Muskens, L. J. J., 1049, 1050  
 Myasishchev, V. N., 1144, 1145, 1324  
 Myerson, A., 1146
- Nelson, R. W., 1325  
 Németh, P., 1180  
 Nemzek, C. L., 1406  
 Ninck, J., 1242  
 Nissen, H. W., 1051  
 Noble, R., 1052  
 Norrem, G. M., 915  
 Nyiró, G., 1147  
 Nylén, O., 816
- Obonal, T., 855  
 Ogasawara, J., 856  
 Okabe, Y., 1171  
 Omwake, L., 1053  
 Oppenheimer, J. J., 1369  
 Orton, J. L., 1095  
 Oswald, —, 857
- Panico, —, 858  
 Panov, A. G., 1148  
 Paschenko, F., 1089  
 Pastori, G., 1222  
 Paterson, A. S., 1149  
 Patey, H. C., 1326  
 Pattie, F. A., Jr., 1054  
 Paul, J. B., 1327  
 Pavla, J. L., 859  
 Peckham, R. H., 783  
 Peel, Z., 916  
 Pende, N., 1243  
 Penrose, L. S., 1150  
 Pereira, J., 1328  
 Perkins, F. T., 799  
 Perry, R. C., 1192  
 Pesson, C., 1359  
 Peters, C. C., 1244, 1329, 1355  
 Peters, H. N., 917  
 Petersen, W. F., 997  
 Peterson, J., 918  
 Peterson, R. C., 1245  
 Pettit, G., 1151  
 Petri, O., 784  
 Petrov, P. M., 785, 1285  
 Pickler, J., 860  
 Pillsbury, W. B., 786  
 Pintner, R., 1370  
 Piotrowski, Z. A., 1152  
 Placzek, S., 1229  
 Platonow, K. I., 1096  
 Plaut, P., 1229  
 Ponisovskaya, A., 1290  
 Popova, G., 1153
- Porter, J. M., Jr., 1154  
 Potter, H. W., 1155, 1156  
 Powdermaker, H., 1246  
 Pratt, C. C., 861  
 Prengowski, P., 1157  
 Price, B., 919  
 Prince, F. B., 1330  
 Purdy, D. M., 1158  
 Pushkareva, E. Z., 998  
 Pyle, W. H., 881
- Rabelo, S., 1247  
 Rabinovich, V. I., 862  
 Radakovic, K., 1248  
 Rahmatullina, S., 1200, 1201, 1378  
 Ramage, H., 1010  
 Ranson, S. W., 863  
 Raymond, C. S., 1159  
 Reger, S. N., 864  
 Reibel, H., 1193, 1403  
 Reichard, J. D., 1160  
 Reinhardt, E., 1331  
 Reiter, N., 920  
 Remmers, H. H., 1332, 1356  
 Rexroad, C. N., 999  
 Ricker, C. S., 1161  
 Ridout, J. H., 1003  
 Riess, B., 1055  
 Rioch, D. McK., 951  
 Rizzo-Borghese, C., 1006  
 Roaf, H. E., 865  
 Robinson, E. S., 1249  
 Robinson, E. W., 1056  
 Robinson, W. J., 1250  
 Roepke, M. H., 982  
 Rohden, F. v., 1251  
 Rosenblueth, A., 951  
 Rosenzweig, S., 866  
 Ross, C. C., 921  
 Rubinow, I. M., 1333  
 Ruckmick, C. A., 1390  
 Rugg, E. U., 1334  
 Rulon, P. J., 1357  
 Rupp, H., 1335  
 Rusk, R. D., 867
- Sackett, E. B., 1336  
 Sahyun, M., 978  
 Salmon, A., 1162  
 Sanborn, H. C., 787  
 Sató, K., 1163  
 Schaefer, H., 868  
 Scheidemann, N. V., 1074  
 Schmidt, G., 1252  
 Schmitz, W., 868  
 Schneider, K. M., 1057  
 Schneider, M., 947  
 Schwartz, S., 1286  
 Schwesinger, G. C., 1082  
 Seashore, R. H., 788, 789, 1358  
 Seevers, M. H., 1098  
 Sgarbi, G., 1000  
 Shaw, C. R., 1254, 1255  
 Shipley, W. C., 1001  
 Shraiber, J. L., 1097  
 Shuttleworth, F. K., 1256  
 Silverman, A., 1002  
 Simson, T., 1164
- Sjöström, —, 939  
 Skinner, B. F., 1058  
 Skvorzov, K., 1153  
 Smalldon, J. L., 1165  
 Smith, G. M., 1371  
 Smith, H., 1363  
 Smith, K. U., 1059  
 Sloan, L. L., 853  
 Solandt, O. M., 1003  
 Soloviev, V. K., 1337  
 Spearman, C., 1372, 1373  
 Staley, D. M., 1257  
 Stanton, H. M., 1258  
 Stauter, J. J., 1259  
 Stavsky, W. H., 1026  
 Steinhaus, A. H., 1004  
 Steinmann, I., 1166  
 Stevenson, G. S., 1326  
 Stevick, P. R., 1260  
 Stewart, R. M., 1101  
 Stiles, W. S., 869  
 Stoddard, G. D., 1214, 1338  
 Stone, C. P., 1064  
 Stradley, B. L., 1339  
 Strang, R., 1340  
 Strohal, R., 922  
 Strong, E. K., 1297, 1341  
 Sweet, E. C., 1342  
 Switzer, S. C. A., 1005
- Tachibana, Y., 870  
 Tainter, M. L., 978  
 Takagi, S., 1060  
 Takahashi, H., 1287  
 Takano, K., 871  
 Talaat, M., 1061  
 Talenti, C., 890  
 Tamaike, J., 872  
 Tang, Y., 891  
 Tatum, A. L., 1098  
 Taylor, H. R., 1194  
 Thomas, M., 1062  
 Thompson, I. M., 873  
 Thorndike, E. L., 923, 1343  
 Thorne, F. C., 952  
 Thouless, R. H., 1261  
 Thurnwald, R., 1195  
 Thurstone, L. L., 1245  
 Tinker, M. A., 1262  
 Tirelli, M., 1063  
 Todd, J. W., 1374  
 Tohri, B., 1200, 1201, 1378  
 Tolman, E. C., 790  
 Tomlin, M. I., 1064  
 Travis, L. E., 1263  
 Tripodi, M., 1167  
 Trossarelli, A., 1168  
 Trueblood, C. K., 1065  
 Tryon, C. M., 1186  
 Tryon, R. C., 1066  
 Tsukada, T., 924  
 Tullio, P., 953, 1006  
 Tyler, R. W., 1344  
 Tyndall, E. P. T., 874
- Uhrbrock, R. S., 1288  
 Ullrich, F. H., 1345
- Valentine, C. W., 1346  
 Valle, J., 1099
- Vampa, D., 1275, 1276  
 Van Voorhis, W. R., 1355  
 [Various], 791  
 Varner, W. B., 1067  
 Varnum, W., 792  
 Verlaine, L., 1068  
 Vernon, P. E., 1196, 1264  
 Vita, A., 875  
 Viteles, M. S., 1007  
 Vitensson, I. G., 1375  
 Vlach, M., 793  
 Vygotski, L. S., 925
- Wadsworth, G. W., Jr., 1185  
 Wagner, L., 876  
 Walker, R. Y., 1265  
 Walker, W., 1347  
 Walls, G. L., 1069  
 Walton, A., 794  
 Wandeler, J., 795  
 Warden, C. J., 1028, 1044, 1055  
 Warren, W. P., 796  
 Watson, G., 1348, 1376  
 Watson, G. B., 1197  
 Weber, C. O., 877  
 Wedell, G. H., 878  
 Weitzenhoffer, T., 797  
 Wendt, G. R., 810, 830, 1008  
 Wenrick, J. E., 1009  
 Werner, H., 798  
 Werner, K., 879  
 Wever, E. G., 880, 1070  
 Wheeler, R. H., 799  
 Wheeler, W. M., 1071  
 Whitehouse, A. G. R., 1010  
 Whitely, P. W., 926  
 Whitney, F. L., 1349  
 Wiederaenders, M. F., 915  
 Wientge, K., 894  
 Williams, R. G., 803  
 Wimmer, A., 1266  
 Winkler, K., 1289  
 Winkler, J. E., 1011  
 Wolfe, W. B., 1198  
 Wolfe, D. L., 1267  
 Wolner, M., 881  
 Woodrow, H., 882  
 Wooten, B. A., 800  
 Worcester, D. A., 892
- Yakovleva, E. K., 1097, 1145  
 Yoshioka, J. G., 1072  
 Young, J. C., 1198  
 Young, M., 1268  
 Young, P. T., 896, 1012  
 Yudina, H. C., 1036  
 Yugelevski, A., 1013
- Zalkind, E., 1290  
 Zimmermann, H., 1169  
 Zinner, E., 883  
 Zipes, A., 1090  
 Zotin, N. N., 1170  
 Zottermann, Y., 816  
 Zubin, J., 1377  
 Zuckerman, S., 1073

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### CONTENTS

Preface. I. Introduction. II. The Psychology of Learning. III. Control and Mental Balance. IV. Motivation—The Dynamics of Education. V. Human Motives Available in Education. VI. The Quality of Organism. VII. The Psychology of Teaching. VIII. General Factors on Which Learning Depends. IX. Details of Management in Instruction. X. The Psychology of Classroom Methods. XI. Measurement in Education. XII. The Education of Exceptional Pupils. XIII. Education in a Sensorimotor Skill—Typing. XIV. Learning on a Symbolic Level—Reading. XV. Knowledge and Thought Outcomes—Scientific Teaching. XVI. The Arts of Expression and Appreciation. XVII. Education for Mental Health. XVIII. Transfer of Training and Formal Discipline. XIX. Psychology and the Curriculum. XX. The Behavior of School Children. XXI. The Psychology of the Teacher. XXII. The Psychology of Educational Change. XXIII. The Place of Psychology in Education. Index of Authors. Index of Subjects.

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